## STIC-Biotech/ChemLib

122960

From:

Whiteman, Brian

Sent:

Wednesday, May 26, 2004 7:34 AM

To:

STIC-Biotech/ChemLib

Subject:

seq search

09/475,704 Barnett et al., 12/30/99

Please search SEQ ID NO: 1, 2, 3, and 4 against us patent and us patent publication databases.

Thank you,

Brian Whiteman Remsen, 2D14 mail box 2C18 Patent Examiner - Art Unit 1635 United States Patent and Trademark Office (571) 272-0764

Searcher:
Phone:
Location:
Date Picked Up:
Date Completed:
Searcher Prep/Review:
Clerical:
Online time:

TYPE OF SEARCH:
NA Sequences:
AA Sequences:
Structures:
Bibliographic:
Litigation:
Full text:
Patent Family:
Other

VENDOR/COST (where applic.)
STN:
DIALOG:
Questel/Orbit:
DRLink:
Lexis/Nexis:
Sequence Sys.:
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Maximum
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Maximum Match 100%
Listing first 45 summaries
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score greater than or equal to the score of the result being printed,
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   Issued_Patents_NA:*

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// cgn2_6/ptodata/2/ina/6A_COMB.seq:*

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US-09-475-515-79
US-09-475-515-79
US-09-475-515-9
US-09-184-18C-10
US-09-184-418C-13
US-09-184-418C-3
US-09-184-418C-3
US-09-184-418C-3
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## ALIGNMENTS

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APPLICANT: BARNETT, Susan
APPLICANT: ARREDE, Jan
APPLICANT: ZUR MEGEDE, Jan
APPLICANT: LIAN, Ying
APPLICANT: LIAN, Ying
APPLICANT: LIAN, Ying
APPLICANT: LIU, Hong
APPLICANT: LIU, Hong
APPLICANT: LIU, Hong
APPLICANT: GREEK, Catherine
APPLICANT: SELBY, Mark
APPLICANT: WALKER, Christopher
ITILE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION
ITILE OF INVENTION: OF VIRUS-LIKE PARTICLES
FILE REFERENCE: 1621.002
CURRENT APPLICATION NUMBER: US/09/475,515A
CURRENT APPLICATION NUMBER: US/09/475,515A
CURRENT FILING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 90
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                              ; TYPE: DNA
; ORGANISM: Artificial Sequence
; PEATURE:
; OTHER INFORMATION: Description
; OTHER INFORMATION: HIV-Gag
US-09-475-515-4
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Similarity 89.3%;
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                                                                              Conservative
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                                        GAGGGCCACCAGATGAAGGACTGCACCGAGCGCCAGGCCAACTTCCTGGGCAAGATCTGG 1302
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APPLICANT: SRIVASTAVA, Indresh
APPLICANT: SRIVASTAVA, Indresh
APPLICANT: HARTOG, Karin
APPLICANT: HILIN, Ying
APPLICANT: HILIN, Ying
APPLICANT: LIU, Hong
APPLICANT: SELBY, Mark
APPLICANT: SELBY, Mark
APPLICANT: SELBY, Mark
TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION
TITLE OF INVENTION: OF VRUS-LIKE PARTICLES
FILE REFERENCE: 1621.002
CURRENT APPLICATION NUMBER: US/09/475,515A
CURRENT FILING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 90
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 75
LENGTH: 4472
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Patent No. 6602705
                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 81.0%; Score 1197.8; DB 4; Length 4472; Best Local Similarity 89.3%; Pred. No. 2.9e-173; Matches 1347; Conservative 0; Mismatches 132; Indels 30;
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ORGANISM: Artificial Sequence
PEATURE:
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ATCCGCCAGCTGCACCCCCCCCTGCAGACCGGCAGCGAGCTGAAGAGCCTGTTCAAC
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                                                                   ACCGTGGCCACCCTGTACTGCGTGCACCAGCGCATCGACGTCAAGGACACCAAGGAGGCC
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                CCCGCCGAGAGCTTCCGCTTC-----GAGGAGACCACCCCCCGGCCAGAAGCAGGAG--- 1413
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APPLICANT: LIU, Hong
APPLICANT: LIU, Hong
APPLICANT: SRIBY, Mark
APPLICANT: SRIBY, Mark
APPLICANT: WALKER, Christopher
TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES
FILE REFERENCE: 1621.002
CURRENT APPLICATION NUMBER: US/09/475,515A
CURRENT APLICATION NUMBER: US/09/475,515A
CURRENT FILING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 90
SOFTWARE: Patentin Ver. 2.0
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TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence:
OTHER INFORMATION: gp160.modSF162.delV2.gag.modSF2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 76, Application US/09475515A Patent No. 6602705 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 81.0%;
Best Local Similarity 89.3%;
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CAGGGCCAGATGGTGCACCAGGCCATCAGCCCCCGCACCCTGAACGCCTGGGTGAAGGTG
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                                                                   ----acaagggcaaggtgagccagaactaccccatcgtgcagaacctg
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Pred. No. 2.9e-173;
0; Mismatches 132; Indels 30;
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                                                        ATCGACAAGGAGCTGTACCCCTGACCAGCCTGCGCAGCCTGTTCGGCAACGACCCCAGC 4574
                                                                                                                                 CCCGCCGAGAGGCTTCCGCTTC-----GAGGAGACCACCCCCGGGCCAGAAGCAGGAG---
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                                                                               ---AGCAAGGACCGCGAGACCCTGAACAGAGCCTGTTCGGCAACGACCCCCTG 1470
                                                                                                                  CCCAGCTACAAGGGCCGCCCCGCAACTTCCTGCAGAGCCGCCCCGAGCCCACCGCCCC
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APPLICANT: ZIR MEGEDE, Jan
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APPLICANT: HARTOG, Karin
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APPLICANT: LIU, Hong
APPLICANT: SRLBY, Mark
APPLICANT: SRLBY, Mark
APPLICANT: SRLBY, Mark
APPLICANT: WALKER, Christopher
APPLICANT: WALKER, Christopher
ITILE OF INVENTION: OF VIRUS-LIKE PARTICLES
FILE OF INVENTION OF VIRUS-LIKE PARTICLES
FILE REFERENCE: 1621.002
CURRENT APPLICATION NUMBER: US/09/475,515A
CURRENT APPLICATION NUMBER: US/09/475,515A
CURRENT FILING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 90
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 74
LENGTH: 4689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; ORGANISM: Artificial Sequence; PEATURE:
OTHER INFORMATION: Description of Artificial Sequence:
OTHER INFORMATION: gp160.modSF162.gag.modSF2
US-09-475-515-74
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GENERAL INFORMATION:
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GCCACCCCCAGGACCTGAACACGATGTTGAACACCGTGGGCGGCCACCAGGCCGCCATG
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Pred. No. 2.9e-173;
0; Mismatches 132;
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; Sequence 73, Application US/09475515A
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; GENERAL INFORMATION:
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APPLICANT: ZUR MEGEDE, Jan
APPLICANT: SRIVASTAVA, Indresh
APPLICANT: LILAN, Ying
APPLICANT: LILAN, Ying
APPLICANT: LILAN, Ying
APPLICANT: LILAN, Ying
APPLICANT: GREER, Catherine
APPLICANT: SELBY, Mark
APPLICANT: WALKER, Christopher
ITILE OF INVENTION: OF VIRUS-LIKE PARTICLES
FILE REFERENCE: 1621.002
CURRENT APPLICATION NUMBER: US/09/475,515A
CURRENT FILING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 90
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 73
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TYPE: DNA
ORGANISM: Artificial Sequence
PEATURE:
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                                                                                   GCCACCCCCAGGACCTGAACACGATGTTGAACACCGTGGGCGGCCACCAGGCCGCCATG
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Sequence 7, Application US/09475515A
Patent No. 6602705
GENERAL INFORMATION:
APPLICANT: BARKETT, SUBBAN
APPLICANT: STIVASTAVA, Indresh
APPLICANT: LIAN, Ying
APPLICANT: LIAN, Ying
APPLICANT: LIAN, Catherine
APPLICANT: GREER, Catherine
                                                                                                                                   RESULT 6
US-09-475-515-7
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Best Local Sin
Matches 1345;
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APPLICANT: WALKER, Christopher
TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES
TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES
FILE REFERENCE: 1621.002
CURRENT APPLICATION NUMBER: US/09/475,515A
CURRENT FILING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 90
SOFTWARE: PATENTIN VET. 2.0
SEQ ID NO 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 2031
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
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                                                       CACGCCGGCCCCATCGCCCCCGGCCAGATGCGCGAGCCCCGCGGCAGCGACATCGCCGGC
                                                                                                           CAGATGCTGAAGGACACCATCAACGAGGAGGCCGCCGAGTGGGACCGCGTGCACCCCGTG
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     ACCACCAGCACCCTGCAGGAGCAGATCGGCTGGATGACCAACAACCCCCCCATCCCCGTG
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Pred. No. 5.8e-173;
0; Mismatches 132;
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Sequence 5, Application US/09475515A

Featent No. 6602705

GENERAL INFORMATION:
APPLICANT: BERRETT, SUSAN
APPLICANT: ERIVASTAVA, Indresh
APPLICANT: LIAN, Ying
APPLICANT: LIAN, Ying
APPLICANT: LIAN, Ying
APPLICANT: LIU, Hong
APPLICANT: LIU, Hong
APPLICANT: SELBY, Mark
APPLICANT: WALKER, Catherine
APPLICANT: WALKER, Christopher
TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES
FILE REFERENCE: 1621.002
CURRENT APPLICATION NUMBER: US/09/475,515A
CURRENT APPLICATION DATE: 1999-12-30
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                                              PRODUCTION
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; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 5
; LENGTH: 1853
; TYPE: DNA
; ORGANISM: Artificial Sequence
; PEATURE:
; OTHER INFORMATION: Description
; OTHER INFORMATION: HIV-Gag-prot
US-09-475-515-5
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APPLICANT: GREEK, CATHERINE
APPLICANT: SELBY, MARK
APPLICANT: SELBY, MARK
APPLICANT: WALKER, Christopher
TITLB OF INVENTION: IMPROVED EXPRESSION OF HIV POI
TITLB OF INVENTION: OF VIRUS-LIKE PARTICLES
FILE REFERENCE: 1621.002
CURRENT APPLICATION UNMER: US/09/475,515A
CURRENT FILING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 90
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 78
LENGTH: 1865
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
                                                                                                                                                                                                                             GENERAL INFORMATION:
APPLICANT: BRANET; Susan
APPLICANT: ENT MEGEDE, Jan
APPLICANT: SRIVASTAVA, Indresh
APPLICANT: LIAN, Ying
APPLICANT: HARTOG, Karin
APPLICANT: LIU, Hong
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Pred. No. 1.1e-160;
0; Mismatches 184;
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US-09-475-515-79  i Sequence 79, Application US/09475515A  patent No. 6602705  GENERAL INFORMATION:  APPLICANT: BIRNETT, SUSAN  APPLICANT: SILVASTAVA, Indresh  APPLICANT: LIAN, Ying  APPLICANT: LIAN, Ying  APPLICANT: SELBY, Mark  APPLICANT: SELBY, Mark  APPLICANT: SELBY, Mark  APPLICANT: SELBY, Mark  APPLICANT: HARKER, Christopher  ITITLE OF INVENTION: OF VIRUS-LIKE PARTICLES  FILE REFERENCE: 1621 002  CURRENT FILING DATE: 199-12-30  INUMBER OF SEQ ID NOS: 90  SOFTWARE: PATHING DATE: 199-12-30  INUMBER OF SEQ ID NOS: 90  SOFTWARE: PARTURE:  LENGTH: 1865  TYPE DNA  ORGANISM: Artificial Sequence  PRATURE:  OTHER INFORMATION: Description of Artificial Sequence: GP2  US-09-475-515-79  Ouery Match  Best Local Similarity 85.8%; Pred: No. 1.1e-160;  Matches 1295; Conservative 0; Mismatches 184; Indels 30; Gaps 4;  Matches 1295; Conservative 0; Mismatches 184; Indels 30; Gaps	Db 973 GAGACCCTGCTGGTGCAGAACGCCAACCCCGACCTGCAAGACCATCCTGAAGGCTTCCAGCC 1032  Oy 1009 CCCGGGCCACCCTGCAGGATGATTCACCGCCCCAGGGGCCACGCCAC 1068  1033 CCCGGGGCCACCCTGGAGGAATTCATCACCGCCTGCAAGGGGTGGCGGCCCCAGCCAC 1092  1069 AAGGCCCGGCTGCTGGCGAGGGCAATCACCACCACACCCAGGGTGATGATG 1122  Oy 1123 CAGAAGAGCAACTTCCGCAAGGCGATGAGCCAAGGCCAACCACGCCAC 1092  1123 CAGACGCGCGAACTTCCGCAACCAGGCCAAGAAGACCCGGCGCAACGAGG 1182  Oy 1133 CGCACATCGCCCGAACCAGGCCAAGAAGACCGTCAAATGCTTCAACTGCGGCAAGGAG 1242  Oy 1134 GAGGCCCAACTTCCCCAAACCAGCCCAAGAAGAGGCTGCTGCAAGTGCGCCAAGGAG 1242  Oy 1135 GCCACACCCCCCAACTGCCCCGCAACAAGAAGAGGCTGCTGCAAGTGCGCCAAGGAG 1242  Oy 123 GAGGACACCTCCACAACTGCCCGCCCCCCCAAGAAGAGGCTGCTGCAGCTAGTGT 1272  Oy 1243 GAGGCCACAACTACCCGCCAACTGCCCCCCCCAAGAAGAGGCTGCTGCAGCCCACCACCTCTGTGTAGTGCAGCCACAAGATCTGG 1302  Oy 1363 CCCACCCCAAATGAAGGACTTCCACCAAGACCACGCCCACCGCCCCCCCC
Qy       589         Db       613         Qy       649         Db       673         Qy       709         Db       733         Qy       769         Db       793         Qy       829         Db       853         Qy       949         Db       973         Qy       1009         Db       1033         Qy       1069	Db 13 Qy 61 Qy 121 Qy 181 Qy 181 Qy 241 Qy 241 Qy 301 Qy 301 Qy 301 Qy 361 Qy 409 Qy 409 Qy 469 Qy 452 Qy 553
CAGATGCTGAAGACACCATCAACGAGAGGCCGCCGAGTGGACCCGGTGCACCCCGTG	

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APPLICANT: ZUR MEGEDE, Jan
APPLICANT: ZUR MEGEDE, Jan
APPLICANT: SRIVASTAVA, Indresh
APPLICANT: LIUA, Ying
APPLICANT: LIU, Hong
APPLICANT: LIU, Hong
APPLICANT: HARTOG, Karin
APPLICANT: GREER, Catherine
APPLICANT: WALKER, Christopher
TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION
TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES
FILE REFERENCE: 1621.002
CURRENT APPLICATION NUMBER: US/09/475,515A
CURRENT FILING DATE: 1999-12-30
NUMBER OF ERO ID NOS: 90
SOPTWARE: Patentin Ver. 2.0
SEPTIMARE: Patentin Ver. 2.0
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TYPE: DNA
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GENERAL INFORMATION:
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         CTGCGCCCGGCGGCAAGAAGTGCTACATGATGAAGCACCTGGTGTGGGCCAGCCGGGAG 120
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Pred. No. 1.1e-160;
0; Mismatches 184;
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GGCCACATCGCCCGCAACTGCCGCGCCCCCCCCAAGAAGGGCTGCTGGAAGTGCGGCAAG
                                    CAGAAGAGCAACTTCAAGGGCCCCCGGGGCATCGTCAAGTGCTTCAACTGCGGCAAGGAG
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Sequence 2, Application US/09552950

Patent NO. 6541248

GENERAL INFORMATION:
APPLICANT: Oxford Biomedica (UK) Limited TITLB OF INVENTION: Anti-viral Vectors FILE REFERENCE: 674524-2004
CURRENT APPLICATION MUMBER: US/09/552,950
CURRENT FILING DATE: 2000-04-20
NUMBER OF SEQ ID NOS: 22
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 2
LENGTH: 4307
TYPE: DNA
ORGANISM: Artificial Sequence
FEBTURE:
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Pred. No. 1.8e-135;
O; Mismatches 259;
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<u> GGGCCCATCGCACCGGGCCAGATGCGTGAGCCACGGGGCTCAGACATCGCCGGAACGACT</u>

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US-09-552-950-5

Query Match Best Local Similarity Matches 1182; Conserv

Conservative

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63.5**%**; 78.6**%**;

Score 939.8; DB 4; Pred. No. 2.7e-134; 0; Mismatches 297;

Length 9772; Indels

24;

Gaps

Artificial

Sequence: pSYNGP

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GENERAL INFORMATION:

APPLICANT: Oxford Blomedica (UK) Limited

ITTLE OF INVENTION: Anti-Viral Vectors

FILE REFERENCE: 674524-2004

CURRENT FILING DATE: 2000-04-20

CURRENT SECONDATE

CORGENER INFORMATION: Description of Artificial

CORGENER INFORMATION: Description of Artificial
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GCCAGCCTGGAGGAGATGATGACCGCCTGCCAGGGCGTGGGCGGCCCCAGCCACAAGGCC 1074
                                                                      CTGCTGGTGCAGAACGCCAACCCCGACTGCAAGACCATCCTGCGGGCTCTCGGGCCCCGGC 1014
                                                                                                                                  TACAAAACGCTCCGCGCGGAGCAGGCTAGCCAGGAGGTGAAGAACTGGATGACCGAAACC
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APPLICANT: The Government of the United States of America TITLE OF INVENTION: WOLECULAR CLONES WITH MUTATED HIV GAG TITLE OF INVENTION: SIV ENV GENES FILE REFERENCE: 2026-4287US1 HIV GAG/POL, SIV GAG & ENV CURRENT APPLICATION NUMBER: US/09/872,733A CURRENT FILING DATE: 2001-06-01
PRIOR APPLICATION NUMBER: PCT/US00/34985
PRIOR APPLICATION NUMBER: PCT/US00/34985
PRIOR PILING DATE: 2000-12-22
PRIOR APPLICATION NUMBER: 60/173,036
PRIOR FILING DATE: 1999-12-23
PRIOR PILING DATE: 1999-12-23
PRIOR PILING DATE: 1999-12-23
NUMBER OF SEQ ID NOS: 19
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                                                                                                                                                                                                                                           ; ORGANISM: Artificial Sequence ; PEATURE:
PEATURE: OTHER INFORMATION: Description of Artificial Sequence: DNA sequence ; OTHER INFORMATION: of the construct pCMVgagpolENKan containing a CMV ; OTHER INFORMATION: promoter, a HIV gag/pol gene and a kanamycin ; OTHER INFORMATION: resistance gene US-09-872-733A-6
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                                                                                                                                                                 Matches 1060;
                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA
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                                                                                                                                                                                 CGCGTGCTGGCCGAGGCGATGAGCCCAGGCCAACA-----CCAGCGTGATGATGCTGAGAAG 1128
                                                                                                                                                                                                                                                                                        GCCAGCCTGGAGGAGATGATGACCGCCTGCCAGGCGTGGGCGGCCCCAGCCAAACGCC 1074
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                                                                              AGCAACTTCAAGGGCCCCCGGGGCATCGTCAAGTGCTTCAACTGCGGCAAGGAGGGCCAC 1188
                                                                                                                                                       AGAGTTTTGGCCGAGGCGATGAGCCAGGTGACGAACTCGGCGACCATAATGATGCAGAGA 1909
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US-09-184-418C-100
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Best Local Sim
Matches 1023;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
APPLICANT: Hahn, Beatrice
APPLICANT: Gao, Feng
APPLICANT: Shaw, George
TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES |
TITLE OF INVENTION: IMMUNODEFICIENCY VIRUS TYPE 1
FILE REFERENCE: D6287
CURRENT APPLICATION NUMBER: US/09/184,418C
CURRENT FILING DATE: 1999-11-02
SEQ ID NO 100
LENGTH: 1476
TYPE-1814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 100, Application US/09184418C Patent No. 6492110
                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA ORGANISM: Human immunodeficiency virus type FEATURE:
                                                                                                                                                                                                                                                                                                                                                          Match 49.9%;
Local Similarity 69.2%;
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CTGGAGAAGTTCGCCCTGAACCCCGGCCTGCTGGAGAGCCAGCGAGGGCTGCAAGCAGATC
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AGGAGACCACC	GCAACITCCTG	GCACCGAGCGC           GTACTGAGAGG	GGGCCCCTAGA	CCCGGCGCATC	CTGAGGCGATG	CTGGAGGAGATGATGAC	GTGCAAAACGCCAACG                  GTCCAAAATGCAAACG	ACCCTGCGCGCGAG	HACATCAAGCAG	GGTGGATCATC            GATGGATAATT	AGGAGCAGATO	CCCCCGGC          CACCAGGC	ACCATCAACGAG	TGAACACGATG	GCCTTCAGCCCCGAG	CACCAGGCCATC	ACAAGGGCAAG
TTCGAGGAGACCACCCCCGGCCAGAAGCAGGAGAGCAAGGACCGCGAGACCCTGAC 	CCCGGGAACTTCCTGGAGAGGCGGCGCCGGGGCGAGAGGCTT	GACTGCACCGAGCCCAGGCCAACTTCCTGGGCAAGATCTGGC	TGCCGGGCCCCCGGAAGAAGGGCTGCTGGAAGTGCGGCAAGGAGGGCCCACCAGATGAAG	CGGCGCATCGTCAAGTGCTTCAACTGCGGCAAGGAGGGCCACATCGC 	CTGGCCGAGGCGATGAGCCAGGCCAACACCAGCGTGATGATGCAGAGAGCAACTTCAAG	ACCGCCTGCCAG	CCCCGACTGCAAGACC	GCGCGCCGAGCAGAGCACCCCAGGAGGTGAAGAACTGGATGACCGACACCCTGCTG 	CTGGACATCAAGCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAG 	aagcostggatcatectoggcctgaacaagatcgtgcggatgtacagccccgtgag 	CTGCAGGAGCAGATCGCCTGGATGACCAGCAACCCCCC 	CAGATGCGCGAGCCCCGCGGCAGCACCACCACCACCACCACCACC	CATCAACGAGGAGGCCGCCGAGTGGGACCGCGTGCACCCCGTGCACGCCGGC 	GACCTGAACACGATGTTGAACACCGTGGGCGGCCACCAGGCCGCCATGCAGATGCTG	CCCGAGGIGATCCCCATGITCACCGCCCTGAGCGAGGGCGCCAC	CAGGCCATCAGCCCCGCACCCTGAACGCCTGGGTGAAGGTGATCGAGGAG 	GTGAGCCAGAAC
CAGGAGAGCAAC         -  - 	GAGCCCACCGCC              GAGCCAACAGCC	CTGGGCAAGATO            TTAGGGAAAATT	TGGAAGTGCGGC             TGGAAATGTGGG	AACTGCGGCAAG              AACTGTGGCAAG	ACCAGCGTGATO	CGCCTGCCAGGCGTGGGCGGCC 	ACCATCCTGCGG	GAGGTGAAGAA          GAAGTAAAAGGT	CCCTTCCGCGAC	AAGATCGTGCGC             AAAATAGTAAG	AGCAACCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	CGCGGCAGCGAC            AGGGGAAGTGAT	TGGGACCGCGTC       TGGGATAGATTI	XGCGGCCACCAC             XGGGGGACATCAJ	FITCACOGCCCTK	CTGAACGCCTGC	GCCGACAAGGGCAAGGTGAGCCAGAACTACCCCATCGTGCAGAACCTSCAGGGCAGACGACAACGTGAACTAGGGCAAAATCTCCAAGGGCAAAATCATCCCAAGAGTCAAAATTATCCTATAGTGCAAAAATCTCCAAGGGCAA
GACCGCGAGAC           GACAGGGAACC	CCACCAGCAGA	TIGGCCCAGCCA	:AAGGAGGGCCA            ;CAAGAAGGACA	GAGGGCCACAT             GAAGGGCACAT	ATGCAGAAGAG          ATGCAGAGAGG	CCCAGCCACAAGGCC	CCATTTTAAGAGCATTAGGACC	TIGGATGACCGA            TIGGATGACAGA	TACGTGGACCG	SATGTACAGCCC             VATGTATAGCCC	CCATCCCCGTGGGCGACATC	CATCGCCGGCAC	CACCCCGTGCA	GCCGCCATGCA	AGCGAGGGCGC	GTGAAGGTGAT                GTAAAAGTAAT	CAGAACCTGCA
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Search completed: May 28, 2004, 13:26:33 Job time: 171.017 secs

CB673622 CB662794 CB666192 CB673355 CB673355 CX163513 CB681973 CB684834 BF259495

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VERSION
KEYWORDS
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ISM Triticum aestivum (bread wheat)

ISM Triticum aestivum (bread wheat)

Sukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae; Triticeae; Triticum.

I (bases 1 to 746)

Allard, F., Crosby, W.L., Danyluk, J., Eudes, F., Frick, M., Gaudet, D., Genswein, B., Graf, R., Gulick, P., Hrycan, L.D., Laroche, A., Links, M.G., McCarthy, E.L., Monroy, A., Muzak, I., Nilson, D., Penniket, C., Roach, J.L. and Sarhan, F.

Punctional Genomics of Abiotic Stress In Wheat and Canola Crops

Links, M.G., McCarthy, E.L., Monroy, A., Muzak, I., Nilson, D., Penniket, C., Roach, J.L. and Sarhan, F.

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Links, M.G., McCarthy, E.L., Monroy, A., Muzak, I., Nilson, D., Penniket, C., Roach, J.L. and Sarhan, F.

Punctional Genomics of Abiotic Stress In Wheat and Canola Crops

Links, M.G., McCarthy, E.L., Monroy, A., Muzak, I., Nilson, D., Penniket, C., Roach, J.L. and Sarhan, F.

Punctional Genomics of Abiotic Stress In Wheat and Canola Crops

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1C101 Engineering Building, 5'
Saskatchewan, S7N SA9, Canada
Tel: 306 966 1769
Pax: 306 966 2033
                                                                                                                                                                                                                                                                                                                    aestivum cDNA, mRNA sequence. CK215205
                                                                                                                                                                                                                                                                                                                                                 CK215205 746 bp mRNA linear EST 09-DEC-2003 FGAS027158 Triticum aestivum FGAS: Library 6 CAP GATE 1 Triticum
                                                                        Bioinformatics
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CR673817
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                                            Department of Computer Science
57 Campus Drive, Saskatoon,
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WHE4119 G
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WHE0616 A
OSIIEb1ZD
Zea mays
WHE3559 C
OV.109IZ3
OV.109R04
OSJNEC140
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Zea mays
603608565
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Zea mays

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This sequence is the direct result of the
phred (default parameters). It is the raw
identification of the high quality insert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (default parameters) has been run on this the region [13,662]. Plate: L6B016 row: K column: 15.
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CTCAACTACCACGAGCGCCTCATGAAGCTCGTCAAGCTCGGCGGCCTCCTCGGCTACGAC 321
                                                        GACGAGGCCAACCACGGCACCTTCGACTTCGTCTTCGTGGACGCCGACAAGGACAACTAC 381
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/clone | Torgan: Crown and leaf; Vector: pCMV SPORT6; Crown
[50%] and leaf (50%) tissues from wheat cultivar Norstar
after short exposure times to low temperature in the light
and in the dark. 12 mRNA populations were combined before
constructing the library. The first 6 populations: After 7
days of growth at 20Cs from wheat cultivar Norstar after
short exposure times to low temperature in the light and
in the dark. 12 mRNA populations were combined before
constructing the library. The first 6 populations: After 7
days of growth at 20, wheat plants were transferred to 4C
in the light. 1cm crown sections and green leaf tissu were
separature exposure. The last 6 populations: After 7
days of growth at 20C, wheat plants were transferred to 4C in
the light. 1cm crown sections and green leaf tissu were
separature exposure. The last 6 populations: After 7 days
of growth at 20C, wheat plants were transferred to 4C in
the dark. 1cm crown sections and green leaf tissu were
separately harvested after 1, 3, and 6 hours of low
temperature exposure. First strand synthesis in this
library was done in the presence of methylated dCTP
thereby protecting from internal cleavage with NotI. In
addition, this library used a primer for second strand
synthesis that annealed to an artificial sequence (RNA
oligo) added before first strand synthesis. Therefore when
sequences from EST generated from this library will be
masked for vector and adaptor sequences, an additional
masking step will have to be included to mask this RNA
oligo that is common to all clones (sequence
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Query Match Best Local Similarity

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US Department of Agriculture, Agriculture Research Service, Pacific
West Area, Western Regional Research Center
800 Buchanan Street, Albany, CA 94710, USA
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                                     Bioinformatics
University of Saskatchewan, Department of Computer Science
1C101 Engineering Building, 57 Campus Drive, Saskatcon,
Saskatchewan, S7N 5A9, Canada
Tel: 306 966 1769
Fax: 306 966 2033
                                                                                                                                                                                                                                           Triticum aestivum
Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Pooideae; Triticum.
1 (bases 1 to 1064)
Bmail: fgas_ests@cs.usask.ca
This sequence is the direct result of
Phred (default parameters). It is the
                                                                                                                                                  Allard, F., Crosby, W.L., Danyluk, J., Eudes, F., Frick, M., Gaudet, D., Genswein, B., Graf, R., Gulick, P., Hrycan, L.D., Laroche, A., Links, M.G., McCarthy, B.L., Monroy, A., Muzak, I., Nilson, D., Penniket, C., Roach, J.L. and Sarhan, F. Functional Genomics of Abiotic Stress In Wheat and Canola Crops Unpublished (2003)
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FGAS015739 Triticum aestivum FGAS:
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/db_xref="taxon:4565"
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PGAS022942 Triticum aestivum FGAS:
aestivum cDNA, mRNA sequence.
CK211108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Enkaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooldeae; Triticeae; Triticum.

1 (bases 1 to 1126)

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Tel: 306 966 1769
Fax: 306 966 2033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Email: fgas_ests@cs.usask.ca
This sequence is the direct result of the
Phred (default parameters). It is the raw
identification of the high quality insert
(default parameters) has been run on this
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Triticum aestivum
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EST.
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                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /clone lib="Triticum aestivum RGAS: Library 6 CAP GATE 1"
/note="Torgan: Crown and leaf; Vector: pcMV.SPORT6; Crown
(50%) and leaf (50%) tissues from wheat cultivar Norstar
after short exposure times to low temperature in the light
and in the dark. 12 mRNA populations were combined before
constructing the library. The first 6 populations: After 7
days of growth at 20Cs from wheat cultivar Norstar after
short exposure times to low temperature in the light and
in the dark. 12 mRNA populations were combined before
constructing the library. The first 6 populations: After 7
days of growth at 20, wheat plants were transferred to 4C
in the light. 1cm crown sections and green leaf tissu were
separately harvested after 1, 3, and 6 hours of low
temperature exposure. The last 6 populations: After 7
days
of growth at 20C, wheat plants were transferred to 4C in
the dark. 1cm crown sections and green leaf tissu were
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           the dark. 1cm crown sections and green leaf tissu were separately harvested after 1, 3, and 6 hours of low temperature exposure. Pirst strand synthesis in this library was done in the presence of methylated dCTP thereby protecting from internal cleavage with NotI. In the presence of the protecting from the protection of the protection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               addition, this library used a primer for second strand synthesis that annealed to an artificial sequence (RNA oligo) added before first strand synthesis. Therefore when sequences from EST generated from this library will be masked for vector and adaptor sequences, an additional masking step will have to be included to mask this RNA oligo that is common to all clones (sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                         oligo that is common to all clones (sequence CGACTGGAGCACGAGGACACTGACATGGACTGAAGGAGTAGAAA)."
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                                                                                                                                                                     0;
                                                                                                                                                                                                                            Score 79.8;
Pred. No. 1.
                                                                                                                                                                ed. No. 1.5;
Mismatches 302;
                                                                                                                                                                                                                                                                              DB 14;
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                                                                                                                                                                           Indels 6;
                                                                                                                                                                                                                                                                              Length 1126;
                                                                                                                                                                           Gaps
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Oryza sativa (japonica cultivar-group)
Oryza sativa (japonica cultivar-group)
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Ehrhartoideae; Oryzaee; Oryza.

1 (bases 1 to 807)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CH673622 807 bp mRNA linear EST 09-APR-20 OSJNBe08D20.f OSJNBe Oryza sativa (japonica cultivar-group) cDNA clone OSJNBe08D20 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Jantasuriyarat, C., Lu, G., Gowda, M., Hatfield, J., Zhou, B., Mazur, E., Kudrna, D., Dean, R., Soderlund, C., Wing, R. and Wang, G. Large-scale identification of ESTs involved in the interaction between rice and Magnaporthe grisea
                                                                  BACKWARD: gga aac agc tat gac cat g
Plate: 08 row: D column: 20
Seq primer: gta aaa cga cgg cca gtg.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Contact: Rod Wing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Unpublished (2003)
                                                                                                                                                                                                                                                                                                                                     PCR PRimers
                                                                                                                                                                                                                                                                                                                                                                                                                                              Fax: 520 621 9288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tel: 520 626 3967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Biological Sciences West, 448A, P.O.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                University of Arizona
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Arizona Genomics Institute
                                                                                                                                                                                                                                                                              FORWARD: gta aaa cga cgg cca gtg
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCCCCCGGCCAGATGCGCGAGCCCCGCGGCAGCACCATCGCCGGCACCACCAGCA 718
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**EST 09-APR-2003** 

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644

Box 210088, Tucson,

ORIGIN

Matches

Tucson,

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Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            264 GCACGAGAAGATCGAGGTCCGCGACACCAAGGAGGCCCTGGACAAGATCGAGGAGGAGCA
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CB662794 821 bp mRNA 1 OSJNEd07C09.f OSJNEd Oryza sativa (japonica clone OSJNEd07C09 5', mRNA sequence. CB662794 CB662794.1 GI:29666519
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Similarity 44.4%;
12; Conservative
                                                                                                                                                                                                    CAAGCCGGTCATCCCCGACAAGTACCTCGACGAGAAGACCAT 791
                                                                                                                                                                                                                                                                                                                                                                                                                      GACCAGCAACCCCCCCATCCCCGTGGGCGACATCTACAAGCGGTGGATCATCCTGGGCCT
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                                                                                                                                                                                                                                        GGAGCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACCCT 905
                                                                                                                                                                                                                                                                                                                             GAACAAGATCGTGCGGATGTACAGCCCCGTGAGCATCCTGGACATCAAGCAGGGCCCCAA 863
                                                                                                                                                                                                                                                                                      CCAGCACGACGAGACCGTCACCAACGACGAGGATCGCCGCCGACCTCAAGGAGCACGTCAT
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/dev_stage="3 week"
/lab_host="DH10B"
/lab_host="DH10B"
/clone_llb="OSJNBe"
/clone_llb="OSJNBe"
/note="Vector: pBluescript II KS +; Site_1: EcoRI; Site_2:
/note="Vector: pBluescript II KS +; Site_1 = EcoRI; Site_2:
XhoI; 24 hrs after innoculation with Rice Blast (70-15)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /organism="Oryza sativa (japonica cultivar-group)"
/mol type="mRNA"
/cultivar="Nipponbare"
/db xref="taxon:39947"
/clone="OSJNEe08D20"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
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Pred. No. 2.3;
0; Mismatches 390; Indels
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                                                               linear EST 09-
a cultivar-group)
                                                                                         EST 09-APR-2003
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Best Local Similarity
Matches 312; Conserv
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University of Arizona
Biological Sciences West, 448A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  between rice and Magnaporthe grisea Unpublished (2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Jantasuriyarat, C., Lu, G., Gowda, M., Hatfield, J., Zhou, B., Mazur, Kudrna, D., Dean, R., Soderlund, C., Wing, R. and Wang, G. Large-scale identification of ESTs involved in the interaction
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BACKWARD: gga aac agc tat gac cat
Plate: 07 row: C column: 09
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Fax: 520 621 9288
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    CGAGTGGGACCGCGTGCACCCCGTGCACGCCCGATCGCCCCCGGCCAGATGCGCGA
                                               CGAGGAGATCGGCGCCGGCGACCAGGGCCCACATGTTCGGCTACGCCACCGACGAGACCCC
                                                                                         CGTGGGCGGCCACCAGGCCGCCATGCAGATGCTGAAGGACACCATCAACGAGGAGGCCGC
                                                                                                                                                                                                                                                                    CACCCTGAACGCCTGGGTGAAGGTGATCGAGGAGAAGGCCCTTCAGCCCCGAGGTGATCCC
                                                                                                                                                                                                                                                                                                             CGAGATCACCACCAAGGCCACCGTCGACTACGAGAAGATCGTCCGCGACACCCTGCCGCGG
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                                                                                                                                  CATCGAGCAGCAGTCGCCCGACATCGCGCCAGGGGGGTGCACGGCCACTTCACCAAGCGCCC
                                                                                                                                                                           CATGTTCACCGCCCTGAGCGAGGGCCCCCCCCCCCAGGACCTGAACACGATGTTGAACAC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /clone_lib="OSJNRd"
/note="Vector: pBluescript II KS +; Site_1:
/not; 24 hrs after innoculation with Rice B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /tissue_type="Leaf"
/dev_stage="3 week"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /cultivar="Nipponbare"
/db_xref="taxon:39947"
/clone="OSJNEd07C09"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="Oryza sativa
/mol_type="mRNA"
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Pred. No.
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Mismatches 390; Indels
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Oryza sativa (japonica cultivar-group)
Oryza sativa (japonica cultivar-group)
Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopeida; Poales; Poaceae;
Bhrhartoideae; Oryzae; Oryza.
1 (bases 1 to 824)
1 (bases 1 to 824)
Jankasurlyarat, C., Lu,G., Gowda,M., Hatfield,J., Zhou,B., Mazur,E.,
Kudrna,D., Dean,R., Soderlund,C., Wing,R. and Wang,G.
Large-scale identification of ESTs involved in the interaction
between rice and Magnaporthe grisea
Unpublished (2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BACKWARD: 998 aac agc tat gac cat g
plate: 12 row: P column: 19
Seg primer: 9ta aaa cga cgg cca gtg
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Arizona Genomice Institute
University of Arizona
Biological Sciences West, 448A, P.O. Box 210088, Tucson,
85721-0088, USA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Smail: http://genome.arizona.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Tel: 520 626 3967
Pax: 520 621 9288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Contact: Rod Wing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FORWARD: gta aaa cga cgg cca gtg
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Location/Qualifiers
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                                                                              5.3%;
ilarity 44.4%;
Conservative
                                                                                                                                                                                                    /tissue_type="Leaf"
/dev stage="3 week"
/lab_host="DH10B"
/lab_host="DH10B"
/lab_host="DH10B"
/clone_lib="OSUNBd"
/clone_
                                                                                                                                                                                                                                                                                                                                                                             /organism="Oryza sativa
/mol_type="mRNA"
/cultivar="Nipponbare"
/db_xref="taxon:39947"
                                                                                                                                                                                                                                                                                                                                                        /clone="OSJNEd12P19"
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                                                                              Score 78; DB 1
Pred. No. 2.3;
0; Mismatches
                                                                                                     DB 14;
2.3;
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Arizona Genomics Institute
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Biological Sciences West, 44
85721-0088, USA
Tel: 520 626 3967
Fax: 520 621 9288
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Oryza sativa (japonica cultivar-group)
Sukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Ehrhartoideae; Oryzaeae; Oryza.

1 (bases 1 to 851)
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PCR PRimers
                          GGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACCCT 905
                                                                                                                                                                                                                       GACCAGCAACCCCCCCATCCCCGTGGGCGACATCTACAAGCGGTGGATCATCCTGGGCCT 803
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CAAGCCGGTCATCCCCGACAAGTACCTCGACGAGAAGACCAT
                                                                                          CCAGCACGACGAGACCGTCACCAACGACGAGATCGCCGCCGACCTCAAGGAGCACGTCAT 764
                                                                                                                                      GAACAAGATCGTGCGGATGTACAGCCCCGTGAGCATCCTGGACATCAAGCAGGGCCCCCAA 863
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/mol type="mRNA"
/cultivar="Nippombare"
/db xref="taxon:39947"
/clone="OSJNEb07H03"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /clone lib="OSJNEb"
/note="Vector: pBluescript II KS +; S
KhoI; 24 hrs after innoculation with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /tissue_type="Leaf"
/dev_stage="3 week"
/lab_host="DH10B"
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908
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h Rice Blast (C)
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AUTHORS
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                                                                                                                                                                                                                                                                                                                                                                                                                      204 GCAGACCGGCAGCGAGGAGCTGAAGAGCCTGTTCAACACCGTGGGCCACCCTGTACTGCGT
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Oryza sativa (japonica cultivar-group)
Oryza sativa (japonica cultivar-group)
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Shrhartoideae; Oryzeae; Oryza.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Unpublished (2003)
Contact: Rod Wing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Jantasuriyarat, C., Lu, G., Gowda, M., Hatfield, J., Zhou, B., Mazur, B., Kudrna, D., Dean, R., Soderlund, C., Wing, R. and Wang, G. Large-scale identification of ESTs involved in the interaction between rice and Magnaporthe grisea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OSJNEe07N10.f OSJNEe Oryza sativa (japonica cultivar-group) clone OSJNEe07N10 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Seq primer: gta aaa cga cgg cca
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Plate: 07 row: N column: 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Email: http://genome.arizona
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Arizona Genomics Institute
University of Arizona
Biological Sciences West, 448A, P.O.
85721-0088, USA
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                                                                                                                                                  GAACTACCCCATCGTGCAGAACCTGCAGGGCCAGATGGTGCACCAGGCCATCAGCCCCCG 443
                                                                                                                                                                                                                                                       GAACAAGTGCCAGCAGAAGATCCAGCAGGCCGAGGCCGACCAAGGGCAAGGTGAGCCA 383
                                                                                                                                                                                                                                                                                                                                                    GCACGAGAAGATCGAGGTCCGCGACACCAAGGAGGCCCCTGGACAAGATCGAGGAGGAGCA 323
                                                                  CACCCTGAACGCCTGGGTGAAGGTGATCGAGGAGAAGGCCTTCAGCCCCGAGGTGATCCC 503
                                                                                                                                                                                                             CCCCGACAGCAAGGTGGCGTGCGAGACGTGCACCAAGACCCAACATGGTGATGGTGTTCGG
                                                                                                                                                                                                                                                                                                                                                                                                    GCAGATAGAAATGGCGGCGGAGACGTTCCTTCTTCACCTTCCGAGTCCGTGAACGAGGGTCA
                        CATCGGCTTCGTGTCCGACGACGTCGGCCTCGACGCCGACCGCTGCAAGGTGCTCGTCAA
                                                                                                                                                                                                                                                                                                          CCCGGACAAGCTGTGCGACCAGGTGTCGGACGCGTGCTCGACGCGTGCCTCGCCCAGGA
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520 621 9288
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/dev stage="3 week"
/lab_host="DH10B"
/lab_nost="DH10B"
/clone_lib="OSJNEe"
/clone_lib="OSJNEe"
/note="Vector: pBluescript II KS +; Site_1: EcoRI; Site_2:
/note="Vector: pBluescript II KS +; Site_1 (70-15)"
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/mol_type="mRNA"
/cultivar="Nipponbare"
/db_xref="taxon:39947"
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44.3%;
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Pred. No. 3.5;
0; Mismatches 389;
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                                                                                                                                                              source
                                                                                                                                                                                                                                                                                                                                              Bioinformatics
University of Saskatchewan, Dep
1C101 Engineering Building, 57
Saskatchewan, S7N 5A9, Canada
Tel: 306 966 1769
Fax: 306 966 2033
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Allard, F., Crosby, W.L., Danyluk, J., Budes, F., Frick, M., Gaudet, I Genswein, B., Graf, R., Gulick, P., Hrycan, L.D., Laroche, A., Links, M.G., McCartby, E.L., Monroy, A., Muzak, I., Nilson, D., Penniket, C., Roach, J.L. and Sarhan, F. Functional Genomics of Abiotic Stress In Wheat and Canola Crops Unpublished (2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CK163513 1138
FGASO16142 Triticum aestivum aestivum cDNA, mRNA sequence.
CK163513
CK163513.1 GI:38993817
                                                                                                                                                                                                                                          This sequence is the direct result of the phred (default parameters). It is the raw identification of the high quality insert (default parameters) has been run on this
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae; Triticum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Contact: Wm L Crosby
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                                                                                                                                                                                                         (default parameters) has been
the region [8,827].
Plate: L4B008 row: F column:
                                                                                                                                                                                                                                                                                                                               Bmail: fgas_ests@cs.usask.ca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGAC 902
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/organism="Triticum aestivum"
/mol_type="mRNA"
/mol_type="mRNA"
/db_xref="ftaxon:4565"
/clone_lib="Triticum aestivum FGAS: Library 4 Gate 8"
/clone_lib="Triticum aestivum FGAS: Library 4 Gate 8"
/note="organ: Crown and leaf; Vector: pCMV.SPORT6; Aerial
parts (crown and leaf) of wheat cultivar Norstar during
dehydration stress. 8 mRNA populations were combined
before constructing the library. The first four come from
                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                         column: 04
                                                                                                                                                                                                                                                                                                                                                                                                         Department of Computer Science
57 Campus Drive, Saskatoon,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PGAS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       mRNA
Library
                                                                                                                                                                                                                                                                  Base calling software base calls. To aid in the the software Lucy
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/ 4 Gate
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Matches 291;
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                                     TTCAGCCCCGAGGTGATCCCCCATGTTCACCGCCCTGAGCGAGGGCGCCACCCCCAGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                    CACCAGGCCATCAGCCCCCGCACCCTGAACGCCTGGGTGAAGGTGATCGAGGAGAAGGCC
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TCGAGATCTGCCAGCTCCCCGTCGGCGACGGCATCACCCTCTGCCGCCGCCGCCA
                                                                                                                                            ACCATCAACGAGGAGGCCGCCGAGTGGGACCGC--GTGCACCCCGTGCACGCCGGCCCCA
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                                                                                            ATCCGCTACTACCGCGACTTCGTCCTCGAGCTCAACAGGCCCTCGCCGNCGACCAGCGCG
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49.0%;
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Pred. No. 3.7;
0; Mismatches
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                                                                                                                                                               KBYWORDS
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Ehrhartoideae; Oryzeae; Oryza.

1 (bases 1 to 812)

Jantasuriyarat C., Lu.G., Gowda,M.,
Kudrna,D., Dean,R., Soderlund,C., W
                                                                             Oryza sativa (japonica cultivar-group)
Oryza sativa (japonica cultivar-group)
Bukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta;
Spermatophyta, Magnoliophyta, Liliopsida, Poales, Poaceae;
                                                                                                                                                                                                   CB681973

B12 bp mRNA
OSJNE£08M09.f OSJNE£ Oryza sativa (japonica
clone OSJNE£08M09 5', mRNA sequence.
CB681973
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  Wing, R. and War
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      Wang,
                       Zhou, B.,
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    85721-0088, USA
Tel: 520 626 3967
Fax: 520 621 9288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unpublished (2003)

Contact: Rod Wing
Arizona Genomics Institute
University of Arizona
Biological Sciences West, 448A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Large-scale identification of ESTs involved in the between rice and Magnaporthe grisea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BACKWARD: gga aac agc tat gac cat g
Plate: 08 row: M column: 09
Seq primer: gta aaa cga cgg cca gtg
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Smail: http://genome.arizona.edu
               GACCAGCAACCCCCCATCCCCGTGGGCGACATCTACAAGCGGTGGATCATCCTGGGCCT
                                                                                                                                                                                                                                                                                                                                                                                                           GAACTACCCCATCGTGCAGAACCTGCAGGGCCAGATGGTGCACCAGGCCATCAGCCCCG 443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAACAAGTGCCAGCAGAAGATCCAGCAGGCCGAGGCCGACAAGGGCAAGGTGAGCCA 383
                                                                              GCCCCGCGCAGCATCGCCGGCACCACCAGCACCTGCAGGAGCAGATCGCCTGGAT
                                                                                                                                               CGAGTGGGACCGCGTGCACCCCGTGCACGCCGGCCCATCGCCCCCGGCCAGATGCGCGA 683
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                                                 CCGCAAGAACGGCACCTGCGCCTGGCTCAGGCCCGACGGCAAGACCCCAGGTCACCGTTGA
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                                                                                                                                                                                                                                                                                                                                            CACCCTGAACGCCTGGGTGAAGGTGATCGAGGAGAAGGCCTTCAGCCCCGAGGTGATCCC
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                                                                                                                CATGTTCACCGCCTGAGCGAGGGCGCCCCCCCCCAGGACCTGAACACGATGTTGAACAC
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /clone lib="OSJNEf"
/note="Vector: pBluescript
XhoI; Uninfected Control"
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/dev_stage="3 week"
/lab_host="DH10B"
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/db_xref="taxon:39947"
/clone="OSJNEf08M09"
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Pred. No. 3.7;
0; Mismatches 391;
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Oryza sativa (japonica cultivar-group)
Oryza sativa (japonica cultivar-group)
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Ehrhartoideae; Oryzaee; Oryza.

1 (bases 1 to 832)
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Plate: 14 row: L column: 24
Seq primer: gta aaa cga cgg cc
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Tel: 520 626 3967 
Fax: 520 621 9288
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Arizona Genomics 1
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Large-scale identification of ESTs involved in the interaction
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Biological Sciences West, 448A, P.O. Box 210088, Tucson,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Unpublished (2003)
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                                       GAACAAGTGCCAGCAGAAGATCCAGCAGGCCGAGGGCCGCCGACAAGGGCAAGGTGAGCCA 383
                                                                                                                     GCACGAGAAGATCGAGGTCCGCGACACCAAGGAGGCCCTGGACAAGATCGAGGAGGAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAACAAGATCGTGCGGATGTACAGCCCCCGTGAGCATCCTGGACATCAAGCAGGGCCCCCAA 863
CCCCGACAGCAAGGTGGCGTGCGAGACGTGCACCAAGACCATGGTGATAGTGTTCGG
                                                                                CCCGGACAAGCTGTGCGACCAGGTGTCGGACGCGGTGCTCGACGCGTGCCTCGCCCAGGA
                                                                                                                                                        GCAGATAGAAATGGCGGCGGAGACGTTCCTCTTCACCTCCGAGTCCGTGAACGAGGGTCA 156
                                                                                                                                                                                           GCAGACCGGCAGGGAGGAGCTGAAGAGCCTGTTCAACACCGTGGCCACCCTGTACTGCGT
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                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                   /clone lib="OSJNRf"
/note="Vector: pBluescript II KS +; Site_1: EcoRI; Site_2:
XhoI; Uninfected Control"
                                                                                                                                                                                                                                                                                                                                                                                            tissue_type="Leaf"
/dev_stage="3 week"
/lab_host="DH108"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Oryza sativa
/mol_type="mRNA"
/cultivar="Nipponbare"
/db_xref="taxon:39947"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                          clone="OSJNEf14L24"
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RESULT 13
BF259495
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AUTHORS
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                                                                                                                                                                                                                                                                    Hordeum vulgare subsp. vulgare
Hordeum vulgare subsp. vulgare
Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Pooideae; Triticeae; Hordeum.

1 (bases 1 to 759)
Wing,R., Close,T.J., Kleinhofs,A., Wise,R., Begum,D., Frisch,D.,
Yu,Y., Henry,D., Palmer,M., Rambo,T., Simmons,J., Choi,D.W.,
Penton,R.D., Oates,R. and Main,D.
Development of a genetically and physically anchored EST resource
for barley genomics: Morex unstressed seedling root cDNA library
Unpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BF259495
HYSMEf0019H19f Hordeum vulgare seedling root EST library HYCDNA0007
(Rtiolated and unstressed) Hordeum vulgare subsp. vulgare cDNA
clone HYSMEf0019H19f, mRNA sequence.
                Email: rwing@clemson.edu
Total hg bases = 388
Total hg bases = 368
Seq primer: AATTAACCCTCACTAAAGGG
High quality sequence stop: 758.
Location/Qualifiers
1. 759
                                                                                                                                                                       Contact: Wing RA
Clemson University Genomics Institute
Clemson University
100 Jordan Hall, Clemson, SC 29634, U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BF259495.2 GI:13120022
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAAGCCGGTCATCCCCGACAAGTACCTCGACGAGAAGACCAT 798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACCCT 905
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAACAAGATCGTGCGGATGTACAGCCCCCGTGAGCATCCTGGACATCAAGCAGGGGCCCCAA 863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GACCAGCAACCCCCCCATCCCCGTGGGCGACATCTACAAGCGGTGGATCATCCTGGGCCT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCAGCACGACGAGACCGTCACCAACGACGAGATCGCCGCCGACCTCAAGGAGCACGTCAT 756
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                                                                                                                                      864 656 7288
864 656 4293
/organism="Hordeum vulgare subsp. vulgare"
                                                                                                                                                                                                                                                           2000 this sequence version replaced gi:11188608
                                                                                                                                                                              SC 29634, USA
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ORIGIN

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Conservative
                                                                                                                                                             with water, nystatin and ceftotaxime in covered crystallization dishes. Five-day old seedling roots were then harvested, total RNA was prepared, poly(A) RNA was purified, one primary unamplified cDNA library was made, and 1 million pfu were in vivo excised to give pBluescript SK(-) cDNA phagemids. These steps were performed in the TJ Close laboratory at the University of California, Riverside (Choi, Close, Fenton). Phagemids were plated and picked at the Clemson University Genomics Institute (CUGI) (Begum, Palmer, Frisch, Atkins and Wing). Plasmid DNA preparations, DNA sequencing and sequence analysis were performed at CUGI (Wing, Yu, Frisch, Henry, Simmons, Oates, Rambo, Main). The sequence has been trimmed to remove vector sequence and contains a minimum of 100 bases of phred value 20 or above. For more details on library preparation and sequence analysis see http://www.genome.clemson.edu/orders Also see Close TJ, Wing R, Kleinhofs A, Wise R (2001) Genetically and physically anchored EST resources for barley genomics. Barley Genetics Newsletter 31:29-30. (http://wheat.pw.usda.gov/ggpages/bgn/31/cover.html)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /clone lib="Hordeum vulgare seedling root EST library HVcDNA0007 (Etiolated and unstressed)" | HVcDNA0007 (Etiolated and unstressed)" | HVcDNA0007 (Etiolated and unstressed)" | Seeds "Vector: lambdaZAP, Site 1: EcoR1; Site 2: Xhol; Seeds were surface sterilized then germinated under axenic conditions in the dark at room temperature on filter paper
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /mol_type="mRNA"
/cultivar="Morex"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /sub_species="vulgare"
/db_xref="taxon:112509"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                tissue_type="Seedling root"
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                                 5.2%;
Score 76.2; DB Pred. No. 3.9; 0; Mismatches
   <u>.</u>
                                                                          DB 10;
       305;
                                                                       Length 759;
           6
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Ś Ś 밁 몽 S 문 몽 묽 S δ Ś 뭆 δ 묽 S S Query Match Best Local Similarity Matches 284; Conserv 424 193 304 184 124 484 253 364 133 244 73 13 TTCAGCCCCAGGATCCCCATGTTCACCGCCTGAGCGAGGGCGCCACCCCCCAGGAC CTGAACACGATGTTGAACACCGTGGGCGGCCACCAGGCCGCCATGCAGATGCTGAAGGAC CACCAGGCCATCAGCCCCCGCACCCTGAACGCCTGGGTGAAGGTGATCGAGGAGAAGGCC GAGATCACCGCCAACCACCATGGAACCTGATGACGTCGGCGGACGAGGGCCAGTTC GAGAAGTTCGCCCTGAACCCCCGGCCTGCTGGAGACCAGCGAGGGCCTGCAAGCAGATCATC ACCATCAACGAGGAGGCCGCCGAGTGGGACCCGCGTGCACCCCGTGCACGCCGGCCCCATC GACGAGGCCAACCACGGCACCTTCGACTTCGTCTTCGTGGACGCCGACAAGGACAACTAC CACAAGATCGACTTCCGCGAGGGCCCCGGCGCTC---CCCGTCCTGGACGCCCTCCTCGAG GACAAGGGCAAGGTGAGCCAGAACTACCCCATCGTGCAGAACCTGCAGGGGCCAGATGGTG GACATCAACCGCGAGAACTACGAGCTGGGGGCTGCCGTGCATCGAGAAGGCCGGCGTGGCG GACAAGATCGAGGAGGAGCAGAACAAGTGCCAGCAGAAGATCCAGCAGGCCGAGGCCGCC GGCTACTCCCTGCTCGCCACCGCGCTCGCCATCCCCGACGACGGCACCATCTTGGCCATG GTGGCCACCCTGTACTGCGTGCACGAGAGAGAGAGGTCCGCGACACCCAAGGAGGCCCTG CTCAACATGCTGCTCAAGCTCATCGGCGCCAAGAAGACCATGGAGATCGGCGTCTACACG сесслестеслессствелевсесноемесьноеместельноеместеттельст CTCAACTACCACGAGCGCCTCATGAAGCTCGTCAAGGTCGGCGGCCTCCTCGGCTACGAC ---AACACCCTCTGGAACGGCTCCGTCGTGCTCCCCGCCGACGCCCCCATGCGCAAGTAC 132 663 483 423 363 72 486 429 543 369 309 192

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Best Local Similarity
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                                                                                                                                                                                                  270;
                        98
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1 (Dases 1 to 562)
Anderson,O.D., Chao,S., Choi,D.W., Close,T.J., Fenton,R.D., Haia,C.C., Kang,Y., Lazo,G.R., Miller,R., Rausch,C.J., Seaton,C.L. and Tong,J.C.
The structure and function of the expressed portion of the wheat genomes - Pre-anthesis spike cDNA library
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BF484304 1inear EST WHEZ321_F12_K23ZS Wheat pre-anthesis spike cDNA library aestivum cDNA clone WHEZ321_F12_K23, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      quality sequence with phred score
Seq primer: Stratagene SK primer.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Email: candersn@pw.usda.gov

Email: candersn@pw.usda.gov

Sequence have been trimmed to remove vector sequence and

Sequence have been trimmed score less than 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Tel: 5105595773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US Department of Agriculture, Agriculture Research
West Area, Western Regional Research Center
800 Buchanan Street, Albany, CA 94710, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Triticum aestivum (bread wheat)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BF484304.1 GI:11567605
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Contact: Olin Anderson
                                                                 CCGTGGCCACCCTGTACTGCGTGCACGAGAAGATCGAGGTCCGCGACACCAAGGAGGCCC 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GINGAGATCIGCCAGCICCCCGTCGGCGACGGCATCACCCTCTGCCGCCGCGCGCA 601
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                        CCGGCTACTCCCTGCTCGCCACCGCGCTCGCCATCCCCGACGACGGCACCATCTTGGCCA
                                                                                                            TCCTCAACATGCTGCTCAAGCTCATCGGCGCCAAGAAGACCATGGAGATCGGCGTCTACA
                                                                                                                                                       TCCGCCAGCTGCACCCCGCCCTGCAGACCGGCAGCGAGGAGCTGAAGAGCCTGTTCAACA 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                /cultivar="Chinese Spring"
/db xref="taxon:4565"
/clone="WHE2321 P12 K23"
/tissue_type="Spike before anthesis"
/dev stage="Adult plant"
/lab_host="E.coli SOLR"
/dev stage="Adult plant"
/lab_host="E.coli SOLR"
/clone_lib="Wheat pre-anthesis spike cDNA library"
/clone_lib="Wheat pre-anthesis spike cDNA library"
/note="Vector: Lambda Uni-ZAP XR, excised phagemid;
Site_1: ECORI, Site_2: XhoI; Plants were grown in the
greenhouse. Whole spike with awns trimmed, white, green
and yellow anther were collected and total RNA, and
poly(A) RNA were prepared, a cDNA library was made, and
the cDNA clones were in vivo excised to give pBluescript
phagemids in the TJ Close lab (Choi, Close, Fenton) at
the University of California, Riverside. Plasmid DNA
preparations and DNA sequencing were performed in the OD
Anderson lab (all other authors)."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                organism="Triticum aestivum"
                                                                                                                                                                                                                 50.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              type="mRNA"
                                                                                                                                                                                             0;
                                                                                                                                                                                             Score 75.6; DB 10;
Pred. No. 4.3;
D; Mismatches 254;
                                                                                                                                                                                               Indels 12;
                                                                                                                                                                                                                                        Length
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AUTHORS
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VERSION
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CB870888
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CB870888
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HC15J04w
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1 (bases 1 to 649)
                                                                                                                                                                                                                                                                                                                                                                                      Email: stein@ipk-gatersleben.de
Insert Length: 649 Std Error:
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Corrensstr. 3, 06466, Gatersleben, Tel: 039482-5522
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Institute of Plant Genetics and Crop Plant Research (IPK)
Corrensstr. 3, 06466, Gatersleben, Germany
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Barley ESTs from coleoptile tissue
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EST.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCAGCGCGTCGAGATCTGCCAGCTCCCCGTCGGCGACGGCATCACCCTCTGCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCGCCCCCGGCCAGATGCGCGAGCCCCGGCAGCATCGCCGGCACCACCAGC 717
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCTCAACTACCACGAGCGCCTCATGAAGCTCGTCAAGGTCGGCCGCCTCCTCGGCTACG
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/clone lib="CH"
/note="Vector: pSPORT; Site 1: Sall (5-end of cDNA);
Site 2: Not! (3-end of cDNA); Due to the cloning systused blue/white selection for recombinants is not 10 reliable. Average insert size is 1.3 kb."
                                                                                                                            /tissue_type="coleoptile"
/dev_stage="coleoptile, 3 days old"
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                                                                                                                                                                                                                                          /mol_type="mRNA"
/cultivar="Sloop"
                                                                                                                                                                                                                                                                                                                           ocation/Qualifiers
                                                                                                                lab
                                                                                                                                                                                                                        db xref="GABI:549289"
                                                                                                                                                                                                                                                                                     organism="Hordeum vulgare"
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                                                                                                                                                                                                  xref="taxon:4513"
                                                                                                                host="DH10B"
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Query Match 5.1%; Score 75.6; DB 14; Length 649; Best Local Similarity 47.7%; Pred. No. 4.4; Matches 284; Conservative 0; Mismatches 305; Indels 6; Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          225 GACATCAACCGCGAGAACTACGAGCTGGGGGTGCCGTGCATCGAGAAGGCCGGCGTGGCG 284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          304 GACAAGATCBAGGAGGAGGAGAACAAGTGCCAGCAGAAGATCCAGCAGGCCGAGGCCGCC 363
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                                                                                                                      GCCCCCGGCCAGATGCGCGAGCCCCCGCGGCAGCACCATCGCCGGCACCACCAGCA 718
                                                                                                                                                                                                                                                                                                                                                                                                         ACCATCAACGAGGAGGCCGCCGAGTGGGACCGCGTGCACCCCCGTGCACGCCGAGCCCCATC 663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       --- AACACCCTCTGGAAACGCCTCCGTCGTGCTCCCCGCCGAACGCCCCATGCGCAAGTAC 518
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Search completed: May 28, 2004, 11:33:43 Job time : 5789.73 secs

BQ619288 BQ619295 BQ619376 BQ619455 BQ619455 BQ619551 CA072199

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C11lastPC SCCCAM100 EST509008

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CG311693

WRE2106.B WHE2066.B G468.105.L PUHEP34TD WIPIC.PK0 WHE0926.B H119012H1 OG48M79TC GR45.119H PUGFA26TB OG5AL58TC PUFKG68TD OGMBO49TV

9 947061G10
7 947074H04
0 GGMIM66TV
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0 GGMIM612H
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1 GGCF27TY
1 GGCM73TH
5 GGBW73TH
5 GGBW73TH
5 GGBW73TH
6 GGBW73TH
7 GGLBB7TV
1 GGLBTT

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Regult
No.
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Listing first 45 summaries
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                                                                                                                                                                                                                                                                                                                                                                                                      Title:
Perfect score:
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                                                                                                                                                                                                                                                                                                                                                                                                                                       92:
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80
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seq length:
                                                                 No. is the number of results predicted by chance to have a greater than or equal to the score of the result being printed, s derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                   of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                   nucleic search, using sw
                                Query
Match
                                                                                            May 28, 2004, 08:01:50; Search time 234.634 Seconds (without alignments) 7636.275 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                            IDENTITY_NUC
Gapop 10.0 , Gapext
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gb_htc:*
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gb_est6:*
em_estfun:*
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Copyright (c) 1993 - 2004 Compugen Ltd.
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                                                            MEDLINE
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Biology Dept.
San Diego State University
5500 Campanile Dr, San Diego
Tel: 6195941336
Email: forest@s
Class: shotgun.
                                                                              l (bases 1 to 646)
Breitbart, N., Hewson, I., Felts, B., Mahaffy, J.M., Nulton, J.,
Salamon, P. and Rohwer, F.
Metagenomic analyses of an uncultured viral community from human
                                                                                                        uncultured human fecal virus uncultured human fecal virus Viruses; environmental samples.
                                                                                                                                         CC821047
FECP4B6 Uncultured human fecal vi.
genomic, genomic survey sequence.
CC821047
                                                     14526037
                                                            22887472
                                                                  J. Bacteriol. 185
                                                                                                                                   CC821047.1 GI:37806847
                                                                          feces
              619595676
                                                                                                                                                                                                                 forest@sunstroke.sdsu.edu
                                                                                                                                                                                                                  (20), 6220-6223 (2003)
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BQ619376
BQ619455
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CQ250176
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BG547389
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CG249691
CG364851
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CG364851
CG364851
CG319393
CC415368
BC4731056
BC4731056
                          Diego,
                                                                                                                                                                                               ALIGNMENTS
                           CA 92102,
                                                                                                                                                      virus uncultured human fecal virus
                           USA
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GSS 22-OCT-2003

from maize

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CA180823 CA180823.1 GI:35114987
EST.
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plate: 160 row: C column: 06
Seq primer: T7 Promoter Primer.
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Caixa Postal 6010, 13083-970, Campinas SP,
Tel: 55 19 3788 1137
Pax: 55 19 3788 1089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Vettore, A.L., da Silva, F.R., Kemper, B.L. and Arruda, P. The libraries that made SUCEST Genet. Mol. Biol. 24 (1-4), 1-7 (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Saccharum officinarum
Rukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bmail: parruda@unicamp.br
Clone distribution: clone distribution
through the Brazilian Clone Collection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Contact: Arruda P
Centro de Biologia Molecular e Engenharia Genetica
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Saccharum officinarum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     clade; Panicoideae; Andropogoneae; Saccharum.
GACATCCGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCCTTCTTCAAG 57
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                                                                                                                                                           /clone lib="ST3"
/clone lib="ST3"
/note="Torgan: Fourth apical stalk internodes of adult /note="Torgan: Fourth apical stalk; Site 2: NotI; An plants; Vector: pSportl; Site 1: SalI; Site 2: NotI; An unidirectional cDNA library generated from [Fourth apical stalk internodes of adult plants]. cDNA was prepared from polyA+ mRNA using SuperScript Plasmid System Kit (Invitrogen). The double-strand cDNAs were fractionated in a sepharose CL-2B 40cm-columns and fragments sizing between 0.8 and 1.5 Kb were directionally cloned into the vector. Details of each source of RNA and library construction can be obtained at http://sucest.lad.ic.unicamp.br/public"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="uncultured human fecal virus"
/mol_type="genomic DNA"
/db_xref="taxon:339364"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Saccharum officinarum"
/mol_type="mRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1. .686
                                                                                                                                                                                                                                                                                                                                                                                                                        /lab_host="DH10B"
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Pred. No. 9.1e+02;
0; Mismatches 17;
                                                               Score 29.8; DB 14;
Pred. No. 9.3e+02;
0; Mismatches 17;
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n officinarum cDNA clone
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Unpublished (2002)
Contact: Bedell JA
Contact Bedell JA
Orion Genomics, LLC
4041 Forest Park Ave, (
Tel: 314 615 6979
Fax: 314 615 5975
                                                                                                                                                                                                                                                                                                                                                                                                                                                70 GCCCTCCTCCCGAGCCACGAGGAGCTCTTCTGCGGCGTCGACGACGCCTTCTTGACGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         11 GCCATGGACCCGGACCTCAAGGCCCGCGTCCGGCCGACCTGGAGAGCTTCCTCAAG
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Zea mays
    Genomics of plant stress tolerance
Unpublished (2002)
Contact: Mark Fredricksen
                                                                                                                                                                                                                                                                      BQ619287 RNOSEQ5H12 SK.abl Salt stressed Zea mays roots cDNA library Zea mays cDNA clone RNOSEQ5H12 SK.abl similar to (AF287276) chlorophylla/b-binding protein precursor [Hordeum vulgare], mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Email: jbedell@oriongenomics.com
Plate: fzmb014f016 row: d colu
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[ (bases 1 to 505)
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                                                               1 (bases 1 to 1151)
Wang, H. and Bohnert, H.J.
                                                                                                      Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD clade; Panicoideae; Andropogoneae; Zea.
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/clone_lib="fzmb filtered library"
/clone_lib="fzmb filtered library"
/note="forgan: leaf; Vector: pBCSK(-); Site_1: HincII; DNA
prepared from purified nuclei was randomly sheared,
end-repaired, size fractionated to enrich for the 0.5 to
5 kb fraction, ligated into HincII-digested pBCSK(-)
vector and electroporated into E. coli cells."
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /organism="Zea mays"
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Pred. No. 9.7e+02;
0; Mismatches 19
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Indels Length 505;

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Wang, H. and Bohnert, H. J.
Genomics of plant stress tolerance
Unpublished (2002)
Contact: Mark Fredricksen
Department of Plant Biology
University of Illinois
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Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD
clade; Panicoideae; Andropogoneae; Zea.
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1201 W. Gregory Dr., Urbana,
Tel: 2172655473
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/dev stage="2 weeks old"
/clone_lib="Salt stressed Zea mays roots cDNA library"
/note="Vector: pBluescript SK+; Stressed 24 hours at 15
mM NaCl"
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/dev_stage="2 weeks old"
/clome_lib="Salt_stressed_Zea_mays_roots_cDNA_library"
/note="Vector: pBluescript_SK+; Stressed_24 hours_at_150
mM_Nacl"
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mol type="mRNA"

cultivar="B73"
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Pred. No. 1.
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Matches 38
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Local Similarity 71.7%;
hes 38; Conservative
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EST.
                                                   Genomics of plant stress tolerance unpublished (2002)
Contact: Mark Fredricksen Department of Plant Biology University of Illinois
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1 (bases 1 to 1151)
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Department of Plant Biology
University of Illinois
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Genomics of plant stress tolerance
Unpublished (2002)
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                  1201 W. Gregory Dr., Urbana, IL 61801, USA
Tel: 2172655473
                                                                                                                                                           Wang, H. and Bohnert, H.J.
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Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD
clade; Panicoideae; Andropogoneae; Zea.
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BQ619295.1 GI:21621289
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Tel: 2172655473
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Smail: bohnertlab@life.uiuc.edu.
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Location/Qualifiers
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/dev_stage="2 weeks old"
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Pred. No. 1.7e
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Wang, H. and Bohnert, H.J.
Genomics of plant stress tolerance
Unpublished (2002)
Contact: Mark Fredricksen
Department of Plant Biology
University of Illinois
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RNOSEQTHO5_SK.abl Salt stressed Zea mays roots cDNA library Zea mays cDNA clone RNOSEQTHO5_SK.abl similar to (AP287276) chlorophyll a/b-binding protein precursor [Hordeum vulgare], mRNA sequence.
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/tissue_type="Roots"
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/note="Vector: pBluescript SK+; Stressed 24 hours at 150
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/cultivar="B73"
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Department of Plant Biology
University of Illinois
1201 W. Gregory Dr., Urbana, IL 61801, USA
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               Bmail: parruda@unicamp.br
Clone distribution: clone distribution information ca
through the Brazilian Clone Collection Center (BCCC)
http://www.bcccenter.fcav.unesp.br
                                                                                       Contact: Arruda P
Centro de Biologia Molecular e Engenharia Genetica
Universidade Estadual de Campinas
Caixa Postal 6010, 13083-970, Campinas SP, Brazil
Tel: 55 19 3788 1137
                                                                                                                                                                                                      Vettore,A.L., da Silva,F.R., Kemper,E.
The libraries that made SUCEST
Genet. Mol. Biol. 24 (1-4), 1-7 (2001)
                                                                                                                                                                                                                                                                               Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD clade; Panicoldeae; Andropogoneae; Saccharum.
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Saccharum officinarum
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CA072199
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Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD
clade; Panicoldeae; Andropogoneae; Zea.
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/clone_lib="Salt stressed Zea mays leaves cDNA library"
/note="Vector: pBluescript SK+; Stressed 24 hours at 15
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/clone="ClllastPCRs_SK.abl"
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ESTs from roots of Medicago truncatula treated with oligogalacturonides of DP 6-20 Unpublished (2001)

Contact: Michael G. Hahn
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                                                                                                                                                                                                                                                          G390995e TIGR sequence name: MTMBZ09TK More information is available at: www.medicago.org
Seq primer: SKmod (CTA gAA CTA gtg gAT CC).
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                               University of Georgia
220 Riverbend Road, A
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Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
rosids; eurosids I; Fabales; Fabaceae; Papilionoideae; Trifolieae;
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EST509008 HOGA Medicago truncatula cDNA clone pHOGA-16B18
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EST.
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/db_xref="taxon:3880"
/clone="pHCGA-16B18"
/tissue_type="3 day old seedling roots"
/dev_stage="24 hours after treatment in the dark at
/dev_stage="24 hours after treatment in the dark at
/ith 0.5 mg/ml oligogalacturonides (DP 6-20) in the
presence of 100 ug/ml Gentamicin"
/lab_host="XLOLR"
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/db_xref="taxon:4547"
/clone="SCCCAM1004D03"
/lab_host="DH10B"
                                                                                                                                                                                      /organism="Medicago truncatula"
/mol_type="mRNA"
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67.8%;
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Pred. No. 1.9e+03;
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947073D08.y1 947 -
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                                                                                                                                                    Similarity
CGGCAGGACATCAAGAACCCCGGCAGCGTCAACCAGGACCCCATCTTCAAGAGC
                                      CGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC 60
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/note="Vector: pBluescript SK-; Site_1: BcoRI; Site_2:
/note="Vector: pBluescript SK-; Site_2: PBluescript Sk-; Site_1: BcoRI; Site_1: BcoRI;
                                                                                                                                                                                                                                                                                               /tissue type="leaf and stem, including leaf base"
/dev stage="2 week old seedling (3 leaves)"
/lab_host="XI1-Blue"
/lab_host="XI1-Blue"
/clone_lib="947 - 2 week shoot from Barkan lab"
/clone_lib="947 - 2 week shoot from Barkan lab"
/note="Organ: shoot; Vector: Lambda ZAP (pBlueScript SK-);
Site 1: EcoRI; Site 2: XhoI; Directionally cloned using
Stratagene's UniZap XR cDNA cloning kit with the 5' end
at the EcoRI site. The library represents 8 x 10e5
independent recombinant phage. The plants were greenhouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism="Zea mays"
/mol_type="mRNA"
/cultivar="B73"
/db_xref="taxon:4577"
                                                                                                                                                                                                                                                                                     independent recombinant phage.
grown."
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Pred. No. 1.9e.
0; Mismatches
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Pred. No. 2e+03;
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RESULT 13

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Zea mays

Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;

Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD

clade; Panicoideae; Andropogoneae; Zea.

1 (bases 1 to 577)

Whitelaw, C.A., Quackenbush, J., Van Aken, S., Utterback, T.,

Resnick, A., Fraser, C.M., Budiman, M.A., Bedell, J.A., Roblfing, T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Centro de Biologia Molecular e Engenharia Genetic
Universidade Estadual de Campinas
Caixa Postal 6010, 13083-970, Campinas SP, Brazil
Tel: 55 19 3788 1137
Fax: 55 19 3788 1089
                                                                                                                                                                                                                      GSS
                                                                                                                                                                                                                                        genomic survey sequence.
CG250176
CG250176.1 GI:34152266
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Clone distribution: clone distribution information can be found
through the Brazilian Clone Collection Center (BCCC) at
http://www.bcccenter.fcav.unesp.br
Plate: 128 row: C column: 11
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SCEPSB1128C11.g SB1 Saccharum
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OGVCW47TV ZM_0.7_1.5_KB Zea
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Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Vettore,A.L., da Silva,F.R., Kemper,B.L. and Arruda,P
The libraries that made SUCEST
Genet. Mol. Biol. 24 (1-4), 1-7 (2001)
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/note="forgan: Stalk Bark from adult plants; Vector:
/note="forgan: Stalk Bark from adult plants; Vector:
pSportl; Site !: SalI; Site 2: NotI; An unidirectional
cDNA library generated from [Stalk Bark from adult
plants]. cDNA was prepared from polyA+ mRNA using
SuperScript Plasmid System Kit (Invitrogen). The
double-strand cDNAs were fractionated in a sepharose
CL-2B 40cm-columns and fragments sizing between 0.8 and
1.5 Kb were directionally cloned into the vector. Details
of each source of RNA and library construction can be
obtained at http://sucest.lad.ic.unicamp.br/public"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /mol_type="mRNA"
/db_xref="taxon:4547"
/clone="SCEPSB1128C11"
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Pred. No. 2e+03;
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                                                                                                                                                                                                                                                                                                                                                                                                Contact: Walbot
                                                                                                                                                                                                                                                                                                                                                                                                                      Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                           University
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Maize ESTs from various
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD
clade; Panicoideae; Andropogoneae; Zea
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Email: whitelaw@tigr.org
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9712 Medical Center Drive,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Contact: Cathy Whitelaw
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                                                                                                                                                                                                                                                                          Plate: 947061
                                                                                                                                                                                                                                                                                                            Tel: 650 723 2227 Pax: 650 725 8221
                                                                                                                                                                                                                                                                                                                                                Stanford University
855 California Ave, Palo Alto, CA 94304,
                                                                                                                                                                                                                                                                                                                                                                                    Department of Biological Sciences
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                                                                                                                                                                                                                                                                                           Smail: walbot@stanford.edu
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/Clone lib="947 - 2 week shoot from Barkan lab"
/note="Organ: shoot; Vector: Lambda ZAP (pBlueScript SK-);
/note="Root; Site_2: XhoI; Directionally cloned using
Stratagene's UniZap XR cDNA cloning kit with the 5' end
at the EcoRI site. The library represents 8 x 10e5
independent recombinant phage. The plants were greenhouse
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/clone_lib="ZM_0.7-1.5_KB"
/note="Vector: pBCSK.; Site_1: HincII; 0.7-1.5
methylation filtered genomic DNA library"
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                                                                                                         /tissue_type="leaf and stem, including leaf base"
/dev_stage="2 week old seedling (3 leaves)"
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Sequence 20, Appli Sequence 4, Appli Sequence 5, Appli Sequence 79, Appli Sequence 79, Appli Sequence 75, Appli Sequence 76, Appli Sequence 76, Appli Sequence 77, Appli Sequence 73, Appli Sequence 73, Appli Sequence 2, Appli Sequence 2, Appli Sequence 3, Appli Sequence 8, Appli Sequence 10, Appli Sequence 10, Appli Sequence 11, Appli Sequence 800, Appli
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Sequence 9, Application US/09475515A
Patent No. 6602705
GENERAL INFORMATION:
APPLICANT: BARNETT, SUSAN
APPLICANT: ZUR MEGEDB, Jan
APPLICANT: SRIVASTAVA, Indresh
APPLICANT: HARTOG, Karin
APPLICANT: HARTOG, Karin
APPLICANT: LIU, Hong

RESULT 2 US-09-475-515-9

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	ក្នុង	APPLICANT: BARNETT, SUBA APPLICANT: ZUR MEGEDE, J APPLICANT: ZUR NEGEDE, J APPLICANT: LIAN, Ying APPLICANT: HARTOG, KARIN APPLICANT: LIU, HONG APPLICANT: GREER, Cather APPLICANT: SELBY, MARK APPLICANT: WALKER, Chris TITLE OF INVENTION: IMPR TITLE OF INVENTION: OF V FILE REFERENCE: 1621.002 FURENT APPLICATION NUMB CURRENT APPLICATION NUMB CURRENT APPLICATION VET. BO ID O 20 SOFTWARE: Patentin Ver. BO ID O 20 GOFTWARE: Artificial SePATE: UNB ORGANISM: Artificial SePATEITE: UNB ORGANISM: Artificial SePATEITE: UNB ORGANISM: Artificial SePATEITE: UNB ORGANISM: Artificial SePATEITE: OTHER INFORMATION: Gag 109-475-515-20	NE COLUMN	22222222222222222222222222222222222222
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RESULT 4
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OTHER INFORMATION: common region
US-09-475-515-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-475-515-4
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                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQ ID NO 4
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Best Local Similarity
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                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: LIU, Hong
APPLICANT: GREER, Catherine
APPLICANT: SELBY, Mark
APPLICANT: WALKER, Christopher
APPLICANT: WALKER, Christopher
TITLE OF INVENTION: OF URUS-LIKE PARTICLES
PILE REFERENCE: 1621.002
FULL REFERENCE: 1621.002
CURRENT APPLICATION NUMBER: US/09/475,515A
CURRENT APPLING DATE: 199-12-30
NUMBER OF SEQ ID NOS: 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
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APPLICANT: WALKER, Christopher
APPLICANT: WALKER, Christopher
TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION
TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES
FILE REFERENCE: 1621.002
FULL REFERENCE: 1621.002
FULL APPLICATION UMBER: US/09/475,515A
CURRENT FILING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 90
SOFTWARE: Patentin Ver. 2.0
APPLICANT: BARNETT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: BARNETT, SUBAN
APPLICANT: ZUR MEGEBE, Jan
APPLICANT: SRIVASTAVA, Indresh
APPLICANT: LIAN, Ying
APPLICANT: HARTOG, Karin
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 1268
TYPE: DNA
ORGANISM: Artificial Sequence
PEATURE:
                                                                                                                                                                                                                                                                                                                          OTHER INFORMATION: Description of Artificial Sequence: synthetic OTHER INFORMATION: HIV-Gag
                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA
ORGANISM: Artificial Sequence
PEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                         ENGTH: 1515
                                                                                                                                                                                                                                                     Local Similarity
                                                                                                                                                        862
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                                                                                                                                                                                          1 GACATCAAGCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC 60
                                                                                                                                                      GACATICCGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTACAAGACC
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Pred. No. 7.8e-09;
                                                                                                                                                                                                                                                   Score 53.6; DB 4;
Pred. No. 7.9e-09;
                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                       DB 4;
                                                                                                                                                                                                                                                                     Length 1515;
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                                                                                                                                                            921
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; OTHER INFORMATION: Description of Artificial Sequence: ; OTHER INFORMATION: HIV-Gag-protease US-09-475-515-5
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문
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                                                                                                                                                                                    SEQ ID NO 78
LENGTH: 1865
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
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                                                                        Matches
                                                                                          Query Match
Best Local Similarity
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Best Local Similarity
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APPLICANT: SELBY, Mark
APPLICANT: WALKER, Christopher
TITLS OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION
TITLS OF INVENTION: OF VIRUS-LIKE PARTICLES
TILE REFERENCE: 1521.002
CURRENT APPLICATION NUMBER: US/09/475,515A
CURRENT FILING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 90
                                                                                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/09/475,515A
CURRENT FILING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 90
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                             APPLICANT: LIU, Hong
APPLICANT: GREER, Catherine
APPLICANT: SELBY, Mark
APPLICANT: WALKER, Christopher
APPLICANT: WALKER, Christopher
TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION
TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES
FILE REFERENCE: 1621.002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: BARNETT, Susan
APPLICANT: ZUR MEGEDE, Jan
APPLICANT: SRIVASTAVA, Indresh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: LIAN, Ying
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 1853
868 GACATCCGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTACAAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     862 GACATCCGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGC
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                    1 GACATCAAGCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC 60
                                                                          56;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Application US/09475515A
                                                                        Conservative
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                                                                                          93.3%;
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                                                                        Score 53.6; DB 4;
Pred. No. 8.1e-09;
0; Mismatches 4;
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Pred. No. 8.1e-09;
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                                                                                                            Length 1865;
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                                                                          Indels
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                                                                          Gaps
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      927
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RESULT 6 US-09-475-515-79

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APPLICANT: LIAN, Ying
APPLICANT: HARTOG, Karin
APPLICANT: HARTOG, Karin
APPLICANT: GREER, Catherine
APPLICANT: SELBY, Mark
APPLICANT: SELBY, Mark
APPLICANT: WALKER, Christopher
TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION
TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES
FILE REFERENCE: 1621.002
CURRENT APPLICATION NUMBER: US/09/475,515A
CURRENT FILING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 90
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 7
LENGTH: 2031
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                                                                                                                                                                              PEATURE:
OTHER INFORMATION: Description of Artificial Sequence: synthetic;
OTHER INFORMATION: HIV-Gag/HCV-core fusion polypeptide
US-09-475-515-7
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Patent NO. 6602705
GENERAL INFORMATION:
APPLICANT: BARNETT, Susan
APPLICANT: ZÜR MEGEDE, Jan
APPLICANT: SRIVASTAVA, Indresh
                                                                                          Matches
                                                                                                              Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PILE REPERENCE: 1621.002
CURRENT APPLICATION NUMBER: US/09/475,515A
CURRENT FILING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 90
SOPTWARE: Patentin Ver. 2.0
SBQ ID NO 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 89.3%;
Best Local Similarity 93.3%;
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APPLICANT: GREER, Catherine
APPLICANT: SELBY, Mark
APPLICANT: WALKER, Christopher
TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION
TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES
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APPLICANT: HARTOG, Karin
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APPLICANT: SRIVASTAVA, Indresh
                                                                                                                                                                                                                                                      TYPE: DNA
ORGANISM: Artificial Sequence
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ORGANISM: Artificial Sequence
PEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 1865
  862 GACATCCGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTACAAGACC 921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 868 GACATCCGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTACAAGACC 927
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                            GACATCAAGCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC 60
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                                                                                        Conservative
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                                                                                                              89.3%;
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                                                                                                           Score 53.6; DB 4;
Pred. No. 8.1e-09;
                                                                                          Mismatches
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                                                                                                                                   Length 2031;
                                                                                          Indels
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; OTHER INFORMATION: Description of Artificial Sequence: synthetic; OTHER INFORMATION: HIV-Gag-polymerase
US-09-475-515-6
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                                                                                                                                                   SBQ ID NO 75
LENGTH: 4472
TYPE: DNA
ORGANISM: Artificial Sequence
Query Match
Best Local Similarity
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Patent No. 6602705
                                                                                                                                                                                                                                                               TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES FILE REFERENCE: 1621.002
CURRENT APPLICATION NUMBER: US/09/475,515A
CURRENT FILING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 90
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APPLICANT: GREER, Catherine
APPLICANT: SELBY, Mark
APPLICANT: WALKER, Christopher
APPLICANT: WALKER, Christopher
TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION
TITLE OF INVENTION: OF VITRUS-LIKE PARTICLES
FILE REPERENCE: 1621.002
FILE REPERENCE: 1621.002
CURRENT FILLING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: BARNETT, Susan
APPLICANT: ZUR MEGEDE, Jan
APPLICANT: SRIVASTAVA, Indresh
APPLICANT: LIAN, Ying
                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: GREER, Catherine
APPLICANT: SELBY, Mark
APPLICANT: WALKER, Christopher
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: HARTOG, KAAPPLICANT: LIU, Hong
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APPLICANT: ZUR MEGEDE, Jan
APPLICANT: SRIVASTAVA, Indresh
APPLICANT: LIAN, Ying
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                                                                                                                                                                                                                                        SOPTWARE: Patentin Ver. 2.0
                                                                                  FEATURE:
OTHER INFORMATION: Description of Artificial Sequence.
OTHER INFORMATION: gp160.modUS4.delV1/V2.gag.modSF2
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ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 4319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    89.3%;
Local Similarity 93.3%;
tes 56; Conservation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Karin
89.3%;
93.3%;
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Pred. No. 8.8e-09;
Score 53.6; DB 4;
Pred. No. 8.8e-09;
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                                                                                                                                                                                                                                                                                                                                                                                  POLYPEPTIDES
                       Length 4472;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 4319;
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                                                                                                                                                                                                                                                                                                                                                                                AND PRODUCTION
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sequence 76, Application US/09475515A
                                                                                                  SEQ ID NO 74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -09-475-515-74
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CURRENT APPLICATION NUMBER: US/09/475,515A
CURRENT FILING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 90
                                                                                                                                                                                                                                                                                                                                                                                                                                             SENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: HARTOG, Karin
APPLICANT: LIU, Hong
APPLICANT: EREER, Catherine
APPLICANT: SELBY, Mark
APPLICANT: WALKER, Christopher
APPLICANT: WALKER, Christopher
                                                                                                                                      TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES FILE REFERENCE: 1621.002
CURRENT APPLICATION NUMBER: US/09/475,515A
CURRENT FILING DATE: 199-12-30
NUMBER OF SEQ ID NOS: 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: LIAN, Ying
                                                                                                                                                                                                                                                             APPLICANT: GREER, Catherine
APPLICANT: SELBY, Mark
APPLICANT: WALKER, Christopher
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                         SOPTWARE:
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                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                APPLICANT: LIAN, Ying
                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               guence 74, Application US/09475515A
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TYPE: DNA
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OTHER INFORMATION: Description of Artificial Sequence: OTHER INFORMATION: gp160.modSF162.delV2.gag.modSF2
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  tent No. 6602705
                                     ORGANISM: Artificial Sequence
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                                                                               ENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
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                                                              DNA
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                                                                                                                   PatentIn Ver. 2.0
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LIU, Hong
                                                                                                                                                                                                                                                                                                                                                                                ZUR MEGEDB, Jan
SRIVASTAVA, Indresh
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SRIVASTAVA, Indresh
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Pred. No. 8
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US-09-475-515-74
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Matches
                                                                                                                                                                                                                    GENERAL INFORMATION:
APPLICANT: Oxford Biomedica (UK) Limited
TITLE OF INVENTION: Anti-Viral Vectors
                                                                                         NUMBER OF SEQ ID NOS: 22
SOPTWARE: Patentin Ver. 2.1
SEQ ID NO 2
LENGTH: 4307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQ ID NO 73
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                                                                                                                                                                                                                                                                             Sequence 2, Application US/09552950 Patent No. 6541248
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                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/09/552,950
CURRENT FILING DATE: 2000-04-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILE REFERENCE: 1621.002
CURRENT APPLICATION NUMBER: US/09/475,515A
CURRENT FILING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: LIU, Hong
APPLICANT: GREER, Catherine
APPLICANT: SELBY, Mark
APPLICANT: SELBY, Mark
APPLICANT: WALKER, Christopher
TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION
TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE:
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                                                                                                                                                                                                         FILE REFERENCE: 674524-2004
                                     TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: Artificial Sequence FEATURE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH: 4766
TYPE: DNA
OTHER INFORMATION: Description of Artificial Sequence:gagpol-SYNgp -OTHER INFORMATION: optimised gagpol sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BARNETT,
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Pred. No. 8.9e-09;
0; Mismatches 4
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Pred. No. 8.9e-09;
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Mismatches 4
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Query Match

Score 43;

В

4

Length 4307

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CURRENT APPLICATION NUMBER: US/09/552,950
CURRENT FILING DATE: 2000-04-20
NUMBER OF SEQ ID NOS: 22
SOPTWARE: PATENTIN Ver. 2.1
SEQ ID NO 5
LENGTH: 9772
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
FEATURE:
Search completed: May 28, 2004, 13:26:22 
Job time : 7.49156 secs
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US-09-552-950-5
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; OTHER INFORMATION: isolate=96ZM651.8; gene=gag
US-09-184-418C-73
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; OTHER INFORMATION: Description of Artificial Sequence:pSYNGP US-09-552-950-5
                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION NUMBER: US/09/184,418C CURRENT FILING DATE: 1999-11-02 NUMBER OF SEQ ID NOS: 112 SEQ ID NO 73 LENGTH: 1485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 5, Application US/09552950
Patent No. 6541248
GENERAL INPORMATION:
APPLICANT: Oxford Biomedica (UK) Limited
TITLE OP INVENTION: Anti-Viral Vectors
FILE REFERENCE: 674524-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
APPLICANT: Habn, Beatrice
APPLICANT: Gao, Feng
APPLICANT: Go, Feng
APPLICANT: Shaw, George
TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
TITLE OF INVENTION: IMMUNODEFICIENCY VIRUS TYPE 1
FILE REFERENCE: D6287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 71.7%; Score 43; DB 4; Length 9772; Best Local Similarity 83.1%; Pred. No. 2.7e-05; Matches 49; Conservative 0; Mismatches 10; Indels
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                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                          ORGANISM: Human immunodeficiency virus type 1
                                                                                                                                                                                                                                                                                                                                                                                             TYPB: DNA
                                                                                                                                                                                                               V Match 63.7%; Score 38.2; DB 4; Local Similarity 78.0%; Pred. No. 0.00081;
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                                                                                                                           1 GACATCAAGCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGAC 59
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                                                                                             GACATAAAACAAGGGCCAAAGGAACCCTTTAGAGACTATGTAGACCGGTTCTTCAAAAC 905
                                                                                                                                                                                           Conservative
                                                                                                                                                                                           0; Mismatches 13;
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Maximum Match 100%
Listing first 45 summaries
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   29.8
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Copyright (c) 1993 - 2004 Compugen
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gb est2:*
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 686
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7636.275 Million cell updates/sec
 CA180823 SCACST316
A1809870 Triticum
BQ619287 RNOSEQ5H1
BQ619288 RNOSEQ6A0
                                                                           Description
                                                                                                                                     REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
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CA180823
LOCUS
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Saccharum officinarum
Saccharum officinarum
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Eukaryota; Viridiplantae; Streptophyta; Doales; Poaceae; PACCAD
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD
clade; Panicoideae; Andropogoneae; Saccharum.
Email: parruda@unicamp.br Clone distribution information can be found through the Brazilian Clone Collection Center (BCCC) at http://www.bcccenter.fcav.unesp.br
                                                       Contact: Arruda P
Centro de Biologia Molecular e Engenharia Genetica
Universidade Estadual de Campinas
Caixa Postal 6010, 13083-970, Campinas SP, Brazil
Tel: 55 19 3788 1137
Fax: 55 19 3788 1089
                                                                                                                                                                                                                                                                                                                     CA180823 686 b
CCACST3160C06.g ST3 Saccharum
5', mENA sequence.
CA180823
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Vettore, A.L., da Silva, P.R., Kemper, E.
The libraries that made SUCEST
Genet Mol Biol 24 (1-4), 1-7 (2001)
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CG225799
CG225799
AW147097
CC675574
CC675574
CC821047
CC821049691
CK198615
CG249691
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BQ657317
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CK166030
BU645917
CK165296
CF430199
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m officinarum cDNA clone
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BG517417 947062C12
CB639810 OSJNEA12B
CG225792 OGOCF27TH
CG225799 OGOCF27TV
AW147097 707011F07
CC675574 OGJAX28TV
CC821047 FBCP486 U
CG249691 OGXCC69TH
CK198615 FGAS007710
CK293655 OG0BV77TV
CK3496815 FGAS007710
CK293655 OG0BV77TV
CK349088 OGYBL67TV
CK349088 OGYBL67TV
CK32908932 OGYBL67TV
CK3313210 OGXDR22TV
CK3313210 OGXDR22TV
CK3313210 OGALB87TV
CK3313210 OGALB87TV
CK313210 OGALB85TV
CK707427 OGUBB52TV
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CK707427 OGUBB52TV
CK707427 OGUBB57V
CK707437 OGUBB5
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BQ619376 RNOSEQ7A0
BQ619455 RNOSEQ7H0
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CK166030 PGASO5007
BU645917 1112034B0
CK165296 PGASO4924
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A1811116 Triticum
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A1811117 Triticum
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Best Local Similarity
                                                                                                             Submitted (03-JUL-2002) Barker G., Institute of
                                                                                                                                                                                                                                                                                                       Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae;
                                                                                                                                                                                                                                                                                                                                   Triticum aestivum (bread wheat)
                                                                                                                                                                                                                                                                                                                                                              BST; expressed sequence
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02-SEP-2002
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                                          source
                                                                                                                                                     Barker G.;
                                                                                                                                                                                                        Unpublished.
                                                                                                                                                                                                                        Edwards D., Coghill J., Holdsworth M., Lenton J., St
"A BBSRC-funded wheat EST resource for the academic
                                                                                                                                                                                                                                                                                             Spermatophyta; Magnoliophyta;
Triticeae; Triticum.
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Seq primer:
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/db xref="taxon.4547"
/clome="scacsT3160C06"
/lab_host="DH10"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          plants; Vector: pSportl; Site 1: Sall; Site 2: Notl; An unidirectional cDNA library generated from [Fourth apical stalk internodes of adult plants]. CDNA was prepared from polyA+ mRNA using SuperScript Plasmid System Kit (Invitrogen). The double-strand cDNAs were fractionated in a sepharose CL-2B 40cm-columns and fragments sizing between 0.8 and 1.5 Kb were directionally cloned into the vector. Details of each source of RNA and library construction can be obtained at http://sucest.lad.ic.unicamp.br/public"
 /db xref="taxon:4565"
/mol_type="mRNA"
/organism="Triticum aestivum"
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                                                                    Location/Qualifiers
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Last updated, Version 2)
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Pred. No. 5
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M., Lenton J., Shewry
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AUTHORS
TITLE
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ORGANISM
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BQ619287
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Best Local Similarity
Matches 41; Conserv
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Best Local (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Genomics of plant stress tolerance
Unpublished (2002)
Contact: Mark Fredricksen
Department of Plant Biology
University of Illinois
1201 W. Gregory Dr., Urbana, IL 61801
Tel: 2172655473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               484 GTCATCAAGGAGACCCCGCGAGACCTTCCACGACCTCGACGACTACCTCCTCAAGAAC
                                                                                                                                                                                       524 GCAGGACATCAAGAACCCCGTCAGCGTCAACCAGGACCCCCATCTTCAAGAGC 575
                 BQ619288
BQ619288.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD clade; Panicoideae; Andropogoneae; Zea.

1 (bases 1 to 1151)

Wang, H. and Bohnert, H.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BQ619287 1151 bp mRNA linear EST 06-SEP-2002 RNOSEQ5H12 SK.abl Salt stressed Zea mays roots cDNA library Zea mays cDNA clone RNOSEQ5H12_SK.abl similar to (AF287276) chlorophyll a/b-binding protein precursor [Hordeum vulgare], mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 GACATCAAGCAGGGCCCCAAGGAGCCCTTCCGGGACTACGTGGACCGCTTCTTCAAGACC
                                                                 BQ619288 1151 bp mRNA linear EST 06-SEP-2002
RNOSEQ6A01 SK.abl Salt stressed Zea mays roots cDNA library Zea
mays cDNA clone RNOSEQ6A01_SK.abl similar to (AF287276) chlorophyll
                                                                                                                                                                                                            9 GCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC 60
                                                                                                                                                                                                                                                          38;
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                                                 a/b-binding protein precursor (Hordeum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Email: bohnertlab@life.uiuc.edu.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /dev stage="6 days post anthesis"
/tissue_type="embryo (micropylar tip)"
/clone_lib="d:15"
/clone="R06_d15_plate_2"
                                                                                                                                                                                                                                                                                                                                              mM NaCl*
                                                                                                                                                                                                                                                                                                                                                           /tissue_type="Roots"
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/clone_lib="Salt_stressed_Zea_mays_roots
/note="Vector: pBluescript_SK+; Stressed
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/clone="RNOSEQ5H12_SK.ab1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                              /mol_type="mRNA"
/cultivar="B73"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /organism="Zea mays"
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                     GI:21621282
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73.1%;
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Pred. No. 7.1e+02;
0; Mismatches 14;
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Pred. No. 6
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Contact: Mark Predricksen Department of Plant Biology University of Illinois
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Department of Plant Biology
University of Illinois
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Genomics of plant stress tolerance
Unpublished (2002)
                                                                                                                                                                                          Smail: bohnertlab@life.uiuc.edu.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                             Wang, H. and Bohnert, H.J.
                                                                                                                                                                                                                                                                                                                                                                               clade; Panicoideae; Andropogoneae; (bases 1 to 1151)
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Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD
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Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD
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Tel: 2172655473
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1 (bases 1 to 1151)
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Pred. No. 7.1e+02;
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Wang,H. and Bohnert,H.J.
Genomics of plant stress tolerance
Unpublished (2002)
Contact: Mark Predricksen
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Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD
clade; Panicoideae; Andropogoneae; Zea.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Department of Plant Biology University of Illinois
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Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD
clade; Panicoideae; Andropogoneae; Zea.
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Tel: 2172655473
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Pred. No. 7.1e+02;
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Pred. No. 7.1e+02;
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Unpublished (2002)
Contact: Mark Fredricksen
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Genomics of plant stress tolerance
Unpublished (2002)
Contact: Mark Predricksen
Department of Plant Biology
University of Illinois
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Tel: 2172655473
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Location/Qualifiers
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Pred. No. 7.1e+02;
 Score 29.6;
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RESULT 10
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Matches 38; Conserv
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Punctional Genomics of Abiotic Stress In Wheat and Canola Crops Unpublished (2003)
Contact: Wm.L. Crosby
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
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FGASO50078 Triticum aestivum
mRNA sequence.
CK166030
BU645917 708 bp mRNA linear EST 30-1112034B07.x1 C. reinhardtii CC-1690 (mt+), CC-1691 (mt-), (normalized), Lambda Zap II Chlamydomonas reinhardtii cDNA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Email: fgas ests@cs.usask.ca
This sequence is the direct result of the Base calling software
Phred (default parameters). It is the raw base calls. To aid in the
identification of the high quality insert the software Lucy
(default parameters) has been run on this sequence. Lucy identified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       University of Saskatchewan, Department of Computer Science
1C101 Engineering Building, 57 Campus Drive, Saskatoon,
Saskatchewan, S7N 5A9, Canada
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Triticum aestivum
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Fax: 306 966 2033
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TaLt707 row: H column: 16.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                   /clone lib="Triticum aestivum FGAS: TaLt7"
/note="Organ: Crown; Vector: pGEM-T; SSH (suppression /note="Organ: Crown; Vector: pGEM-T; SSH (suppression subtractive hybridization) cDNA library from genotype CI14106 cold hardened at 2 C for 21 days and 49 days (equal amount of cDNA pooled together before subtraction, tester) and subtracted against genotype CI14106 non-hardened (20 C) (driver). Nitro-pyrole anchored oligo-dT priming and non-directional cloning."
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/cultivar="Wheat line CI 14106"
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0; Mismatches 14
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FGAS: Talt7 Triticum aestivum cDNA,
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RESULT 11
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                                                                                                                                                                                                                              CK165296 922
FGAS049245 Triticum aestivum
                 Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Pooideae; Triticeae; Triticum.
                                                                                                                                          CK165296.1 GI:38997204
BST.
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Durham, NC 27708-1000
Tel: 919 613 8159
Pax: 919 613 8177
                                                                                                                                                                                      CK165296
                                                                                                                                                                                                            mRNA sequence.
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1 (bases 1 to 708)
Grossman, A., Chang, C.-W., Davies, J
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Bukaryota; Viridiplantae; Chlorophyta; Chlorophyceae; Volvocales;
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BU645917.1 GI:23358097
BST.
Chlamydomonas reinhardtii
                                                                                        Triticum aestivum
                                                                                                               Triticum aestivum (bread wheat)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
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/note="Vector: pBluescript II SK; Site 1: EcoRI; Site 2: XhoI; Gamete library was constructed by Hui Zhao, Min Lu, Jeffrey McDermott, William J. Snell and John Davies.
Strain 21gr cells (CC-1690; mating type plus) and strain 6145c cells (CC-1691; mating type minus) that had been growing on a light-dark cycle (13:11 L/D) in R-medium (Sager and Granick) were separately transfered into nitrogen-free medium at 8 hours into the light period.
PolyA mRNA was purified from each sample every 2 hours for the next 18 hours. The mRNA was pooled and used for cDNA synthesis. The cDNA was directionally cloned into lambda Zap II (Stratagene) in the EcoRI (5') and XhoRI (3') sites. pBluescript II SK- plasmids were excised from the lambda ZAP clones by superinfection with ExAssist (Stratagene) phage. The library was normalized using method 4 described in Bonaldo et al., (1996) Genome Research 6: 791-806."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   chauser@duke.edu
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/strain="21gr (C
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Pred. No. 8.1e+02;
0; Mismatches 18;
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                                                                                                                                                                                                                             Unpublished (2003)
Other_BSTs: PH1_26_D03.b1_A002
Contact: Cordonnier-Pratt MM
                                                                                                                                                                                                                                                                                                                                              Cordonnier-Pratt,M.-M., Suzuki,Y., Sugano,S., Klein,R.R., Lia
Sun,R., Sullivan,R., Harris,K., Bastman,A. and Pratt,L.H.
An BST database from Sorghum: phosphorous-deficient seedlings
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                                                                                                        Laboratory for Genomics and Bioinformatics
The University of Georgia, Department of Plant Biology
Plant Sciences Building, Rm. 2502, Athens, GA 30602-7271, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD clade; Panicoideae; Andropogoneae; Sorghum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sorghum bicolor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Email: fgas_ests@cs.usask.ca
This sequence is the direct result of the Base calling software
Phred (default parameters). It is the raw base calls. To aid in the
identification of the high quality insert the software Lucy
(default parameters) has been run on this sequence. Lucy identified
the region [123,581].
Plate: Tail705 row: A column: 03.
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University of Saskatchewan, Department of Computer Science
1C1D1 Engineering Building, 57 Campus Drive, Saskatoon,
Saskatchewan, S7N SA9, Canada
Tel: 306 966 1769
Fax: 306 966 2033
                                    Tel: 706 542 1860
Fax: 706 583 0210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sorghum bicolor (sorghum)
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Contact: Wm L Crosby
Smail: mmpratt@uga.edu
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/mol type="mRNA"
/mol type="mRNA"
/culTivar="wheat line CI 14106"
/db xref="taxon:4565"
/db xref="taxon:4565"
/lab_host="DH5 alpha"
/clone lib="Triticum aestivum FGAS: Talt7"
/clone lib="Triticum aestivum aestivum FGAS: Talt7"
/clone lib="Triticum aestivum aestivum fGAS: Talt7"
/clone lib="Triti
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66.7%;
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Pred. No. 8.6e+02;
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library constructed by Dr. Yutaka Suzuki and Dr.

Sumio Sugano in

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RESULT 13
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Bdwards D., Coghill J., Holdsworth M., Lenton J., Shewry P.,
"A BBSRC-funded wheat EST resource for the academic communit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooidea
Triticeae; Triticum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           05-JUL-2002
02-SBP-2002
                                                                                                    Submitted (03-JUL-2002) to the Barker G., Institute of Arable
                                                                                                                                                                                                                                                                                                                                              Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Triticum aestivum (bread wheat)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Triticum aestivum (mercia) clone A10_d37_plate_1 embryo (micropylar tip)
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                                                                    United Kingdom.
                                                                                                                                                                                                             Barker G.;
                                                                                                                                                                                                                                                 L-455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              expressed sequence tag.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                38;
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llarity 71.7%;
Conservative
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/clome="FH1 26 D03 A002"
/lab host="FH10B-TI phage-resistant B. coli"
/lab host="FH10B-TI phage-resistant B. coli"
/lab host="FH10B-TI phage-resistant B. coli"
/clome lib="Phosphorous-deficient seedlings"
/clome lib="Phosphorous-deficient seedlings"
/clome lib="Phosphorous-deficient seedlings"
//clome lib="Phosphorous-deficient phosphorous-lib-ray was prepared from polyA+ RNA from BTX623 seedlings
grown hydroponically in the absence of added phosphorous-
At 14 days of age, roots and shoots were harvested and
stored at -80 C until RNA was solated. Double-stranded
cDNA was cloned unidirectionally into different DralII
sites of the pMB18S-FL3 vector (5-prime DraIII site is
CACTOTOTG, 3-prime DraIII site is CACCATGTG). XhoI excises
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                                                                                                        EMBL/GenBank/DDBJ databases.

Crop Research, Long Ashton, Bristol BS41 9AF
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P., Edwards K.;
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Location/Qualifiers

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
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                                                              Matches
                                                                            Query Match
Best Local 9
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                                                                             Local Similarity
183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     324 GTCATCAAGGAGACCGCCGCCNAGACCTTCCACGACCTCGACGACTACCTCCTCAAGAAC 383
                                                                                                                                                                                                                                                                                                                                                                                                                        Unpublished ....
Contact: Takuji Sasaki
National Institute of Agrobiological Resources
.... Annume Research Program, Kannondai 2-1-2,
                                                              40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Oryza sativa (japonica cultivar-group)
Oryza sativa (japonica cultivar-group)
Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Rice cDNA from immature 
Unpublished (1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EST
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sasaki, T. and Yamamoto, K.
                                                                                                                                                                                                                                                                                                                                                                                           Tel: 81-298-38-7441 Fax: 81-298-38-7468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AU031268.1 GI:3767158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Oryza Bativa
                                                                                                                                                                                                                                                                                                                                                            PROJECT ='RGP'
                                                                                                                                                                                                                                                                                                                                                                          Bmail: tsasaki@abr.affrc.go.jp,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                           GACATCAAGCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GACATCAAGCAGGGCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC
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GTCATCAAGGAGACCGCCGCCAAGACCTTCCACGACNTCGACGACTACCTCCTCAAGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (bases 1 to 491)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    B₽;
                                                                                                                                                                                                           /organism="Oryza sativa (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    95 A; 140 C; 149 G; 70 T; 1 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /dev_stage="10 days post anthesis"
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/clone="A10_d37_plate_1"
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meristem (under long day condition)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                organism="Triticum aestivum"
                                                                                                                                                                              neristem"
                                                                                                                                                                                            clone_lib="Rice cDNA from immature leaf including apical
                                                                                                                                                                                                                                                                                                                         ocation/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  491 bp mRNA linear EST 01-APR-20 cDNA from immature leaf including apical meristem (japonica cultivar-group) cDNA clone E61244_2z, mRNA
                                                                             47.7%;
66.7%;
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66.7%;
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                                                              Score 28.6; DB 9;
Pred. No. 1.1e+03;
0; Mismatches 20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       leaf including apical meristem
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                            URL:http://rgp.dna.affrc.go.jp/
                                                                                                                                                                                                                                                                                            (japonica cultivar-group) "
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ACCESSION
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LOCUS
DEFINITION
Search completed: May 28, 2004, 11:33:34 Job time : 239.634 secs
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JOURNAL
COMMENT
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AUTHORS
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Best Local Similarity
Matches 40; Conserv
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                                                                                   295 GTCATCAAGGAGACCGCCGCCAAGACCTTCCACGACCTNGAGGACTACCTCCTCAAGAAC 236
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Triticum aestivum
Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Pooideae; Triticeae; Triticum.

1 (bases 1 to 513)
Tingey,S.V., Powell,W., Wolters,P., Dolan,W., Hainey,C., Yuan,Z.,
Miao,G., Caraher,N. and Hanafey,M.K.
DuPont Wheat cDNA Sequence
Unpublished (2002)
Contact: Scott V. Tingey
Contact: Scott V. Tingey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   wdk2c.pk007.j12 wdk2c Triticum aestivum cDNA clone wdk2c.pk007.j12
5' end, mRNA sequence.
CA707887
                                                                                                                  1 GACATCAAGGAGGCCCCAAGGAGCCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             B. I. Dapont de Nemours and Company
B. I. Dapont de Nemours and Company
B. I. Indovation Way, P.O. Box 6104, Newark, DE 19714-6104, USA
Tel: 302-631-2607
Fax: 302-631-2607
Email: Scott. V. Tingey@USA.dupont.com
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BST.
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B. I. DuPont of
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XhoI; Wheat (Triticum aestivum L.) developing kernel, 7
days after anthesis."
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
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Result
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 200000000
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Copyright (c) 1993 - 2004 Compugen Ltd.
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Appl Appl Appl Appl Appl Appl Appl Appl	

## ALIGNMENTS

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GENERAL INFORMATION:

GENERAL INFORMATION:

APPLICANT: Zur Megede, Jan

APPLICANT: Barnett, Susan W.

APPLICANT: Bernett, Susan W.

APPLICANT: Egnelbrecht, Susan

APPLICANT: van Rensburg, Estrelita Janse

ITILE OF INVENTION: POLYPETIDES ENCODING ANTIGENIC HIV TYPE C

TITILE OF INVENTION: POLYPETIDES, POLYPEPTIDES AND USES THEREOF

FILE REFERENCE: PP01631.102

CURRENT APPLICATION NUMBER: US/09/899,575

CURRENT FILING DATE: 2001-07-05

FRIOR APPLICATION NUMBER: 09/475,704

PRIOR FILING DATE: 1999-12-30

NUMBER OF SEQ ID NO 4

LENGTH: 1509

TYPE: DAY

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Matches 1509; Conservat
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                                                                                                                                                                                                                                                        OTHER INFORMATION: Description of Artificial Sequence: synthetic Gag
OTHER INFORMATION: of HIV strain AF110967
                                                                                                                                                                                                                                                                                                  TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
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                                                                  Conservative
                                                                                                                                                  100.0%; Score 1509;
100.0%; Pred. No. 0;
tive 0; Mismatches
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APPLICANT: O'Hagan, Derek
APPLICANT: O'Hagan, Derek
APPLICANT: Otten, Gillis
APPLICANT: Donnelly, John J.
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APPLICANT: Barnett, Susan
APPLICANT: Ulmer, Jeffrey
APPLICANT: Ulmer, Jeffrey
APPLICANT: Dubennaky, Jr., Thomas W.
TITLE OF INVENTION: MICROPARTICLES FOR DELIVERY OF HETEROLOGOUS NUCLEIC ACIDS
FILLE REFERENCE: PP16269-004
CCURRENT APPLICATION NUMBER: 60/236,105
PRIOR APPLICATION NUMBER: 60/236,105
PRIOR APPLICATION NUMBER: 60/235,105
PRIOR APPLICATION NUMBER: 60/315,905
PRIOR APPLICATION NUMBER: 60/315,
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US-09-967-464-64
; Sequence 64, Application US/09967464
; Publication No. US20030138453A1
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Best Local Similarity
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APPLICANT: Singh, Mamohan
APPLICANT: Ulmer, Jeffrey
APPLICANT: Ulmer, Jeffrey
APPLICANT: Ulmer, Jeffrey
FITTLE OF INVENTION: MICROPARTICLES FOR DELIV
FILE REFERENCE: PP16269.004
CURRENT APPLICATION UNMERE: US/09/967,464
CURRENT FILING DATE: 2002-04-11
PRIOR APPLICATION NUMBER: 60/236,105
PRIOR FILING DATE: 2000-09-28
PRIOR APPLICATION NUMBER: 60/315,905
PRIOR FILING DATE: 2001-08-30
NUMBER OF SEQ ID NOS: 68
SOFTWARE: PATENTIN PRIOR SEG ID NOS: 68
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                                                                                                                                                                                                                                                                                                                                                            ; LENGTH: 1509
; TYPE: DNA
; ORGANISM: Human immunodeficiency virus type
US-09-967-464-68
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US-09-967-464-68
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Publication No. US20030138453A1
GENERAL INFORMATION:
APPLICANT: O'Hagan, Derek
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Best Local Similarity 99.2%;
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Donnelly, John J
Polo, John M.
Barnett, Susan
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                                                       ACCGTGGCCACCCTGTACTGCGTGCACGCCGGCATCGAGGTCCGCGACACCAAGGAGGCC
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                                          <u> ACCGTGGCCACCCTGTACTGCGTGCACGCCGGCATCGAGGTSCGCGACACCAAGGAGGCC</u>
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Pred. No. 2.2e-314;
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GCCGAGGCGATGAGCCAGGCCAACAGCGTGAACATCATGATGCAGAAGAGCAACTTCAAG
                                                                                              GACTGCACCGAGCGCCAGGCCAACTTCCTGGGCAAGATCTGGCCCAGCCACAAGGGCCGC
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Sequence 21, Application US/0989575

Publication No. US20030223961A1

GENERAL INFORMATION:
APPLICANT: Edwinett, Susan W.
APPLICANT: Edwinett, Susan W.
APPLICANT: Edwinett, Susan W.
APPLICANT: Van Ransburg, Estrelita Janse
APPLICANT: Van Ransburg, Estrelita Janse
APPLICANT: Van Ransburg, Estrelita Janse
ITITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C
ITITLE OF INVENTION: POLYNUCLEOTIDES, POLYPEPTIDES AND USES THEREOF
FILLE REFERENCE: POL631.102

CURRENT APPLICATION NUMBER: US/09/899,575

CURRENT APPLICATION NUMBER: 09/475,704

PRIOR TILING DATE: 1999-12-30

SOFTWARE: Patentin Ver. 2.0

SEQ ID NO 2:
LENGTH: 1509

TYPE: DNA
ORGANICM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; OTHER INFORMATION: Description of Artificial Sequence: synthetic; OTHER INFORMATION: coding sequence of HIV strain AF110967 US-09-899-575-21
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Sequence 51, Application US/0989575

Publication No. US20030223961A1

GENERAL INFORMATION:

APPLICANT: EXIMAGE AND W.

APPLICANT: Barnett, Susan W.

APPLICANT: Egnelbrecht, Susan W.

APPLICANT: Egnelbrecht, Susan W.

TITLE OF INVENTION: POLYMUCLECTIDES ENCODING ANTIGENIC HIV TYPE C

TITLE OF INVENTION: POLYMUCLECTIDES ENCODING ANTIGENIC HIV TYPE C

TITLE OF INVENTION: POLYMUCLECTIDES, POLYPEPTIDES AND USES THEREOF

FILE REFERENCE: PP01631.102

CURRENT APPLICATION NUMBER: US/09/899,575

CURRENT FILING DATE: 2001-07-05

FRIOR APPLICATION NUMBER: 09/475,704

PRIOR APPLICATION NUMBER: 09/475,704

PRIOR APPLICATION NUMBER: 1999-12-30

NUMBER OF SEQ ID NOS: 135

SOPTWARE: Patentin Ver. 2.0

SEQ ID NO 51

LENGTH: 1494

TYPE: DNA

ORGANISM: Artificial Sequence
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Local Similarity 92.7%;
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Sequence 99, Application US/09899575
publication No. US20030223961A1
GENERAL INFORMATION:
APPLICANT: Zur Megede, Jan
APPLICANT: Barnett, Susan
APPLICANT: Bgnelbrecht, Susan
APPLICANT: van Rensburg, Estrelita Janse
TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV
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FILE REFERENCE: PP01.631.102
CURRENT APPLICATION NUMBER: US/09/899,575
CURRENT FILING DATE: 2001-07-05
PRIOR APPLICATION NUMBER: 09/475,704
PRIOR PILING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 135
SOFTWARE: Patentin Ver. 2.0
SOFTWARE: Patentin Ver. 2.0
SOFTWARE: 1491
TYPE: DNA
ORGANISM: Artificial Sequence
PENTURE:
OTHER INFORMATION: Description of Artificial Sequence-
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pred. No. 1.6e-269;
0; Mismatches 87;
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Sequence 63, Application US/09967464
Publication No. US20030138453A1
GENERAL INFORMATION:
APPLICANT: O'Hagan, Derek
APPLICANT: Otten, Gillis
APPLICANT: Donnelly, John J.
APPLICANT: Barnett, Susan
APPLICANT: Bingh, Mamohan
APPLICANT: Singh, Mamohan
APPLICANT: Dubensky, Jr., Thomas W.
TITLE OF INVENTION: MICROPARTICLES FOR DELIV
FILE REFERENCE: PP16269.004
CURRENT APPLICATION NUMBER: US/09/967,464
CURRENT FILING DATE: 2002-04-11
PRIOR APPLICATION NUMBER: 60/236,105
PRIOR APPLICATION NUMBER: 60/236,105
PRIOR APPLICATION NUMBER: 60/315,905
PRIOR APPLICATION NUMBER: 60/315,905
PRIOR APPLICATION NUMBER: 60/315,905
PRIOR FILING DATE: 2001-08-30
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; SOFTWARE: Patentin version 3
; SEQ ID NO 63
; LENGTH: 1479
; TYPE: DNA
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                                                                       AAGCGGTGGATCATCCTGGGCCTGAACAAGATCGTGCGGATGTACAGCCCCGTGAGCATC
                                                                                                                  CTGCAGGAGCAGATCGCCTGGATGACCAGCAACCCCCCGTGGCCGTGGGCGACATCTAC
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                             CTGGACATCAAGCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAG
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Query Match 84.6%; Score 1276.8; DB 13; Length 1479; Best Local Similarity 92.5%; Pred. No. 1.2e-265;	OTHER INFORMATION: Description of Artificial Sequence: synthetic Gag OTHER INFORMATION: of HIV strain AP110965 S-09-899-575-3	TYPE: DNA ORGANISM: Artificial Sequence PRATTER:	SOTTWARE PATENTIN Ver. 2.0 SOTTWARE PATENTIN Ver. 2.0 SO ID NO 3	CURRENT FILING DATE: 2001-07-05 PRIOR FILING DATE: 1999-12-30 NIMBER OF SEC IN NOS: 135	TITLE OF INVESTION: FOLKPOCHECULES ENCOURS AND USBS THEREOF FILE REPERENCE: PP01631.102  CURRENT APPLICATION NUMBER: US/09/899,575	APPLICANT: Sur megene, Jan APPLICANT: Benefit, Susan W. APPLICANT: Egnelbrecht, Susan APPLICANT: van Renaburg, Estrelita Janse	ance 3, Application (Cation US20030)	·	1498 CTGAGCCAGTAA	1438 1420	Y 1378 CCCCCCGCCGAGAGCTTCCGCTTCGAGGAGACCACCCCCGCCCCAAGCAGGAGCCCAAG 1437	1318   CGCCCCGGCAACTTCCTGCAGAACCGCCAGCCGAGCCCGCCC	DY 1258 AAGGACTGCACCGAGGCCAGGCCAACTTCCTGGGCAAGATCTGGCCCAGCCACAAGGGC 1317	Y 1198 AACTGCCGCGCCAAGAAGGGCTGCTGGAAGTGCGGCAAGGAGGGCCACCAGATG 1257 b 1198 AACTGCCGCGCCCCCGCAAGAAGGGCTGCTGGAAGTGCGGCAAGGAGGGCCACCAGATG 1257	1138 AAGGGCCCCGGCGCAAGTCAAGTGCTTCAACTGCGGCAAGGAGGGCCACATCGCCAAG	1078 CTGGCCGAGGGGGATGAGCCAGGGCCAACAGCGTGAACATCATGATGCAGAAGAGCAACTTC	1018		
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Sequence 18, Application US/10190435
; Sequence 18, Application US/20030143248A1
; Publication No. US20030143248A1
; Publication No. US20030143248A1
; Publication No. US20030143248A1
; APPLICANT: UR MEGEDB, Jan
; APPLICANT: ENGELERECHT, Susan W.
APPLICANT: LIAN, Ying
; APPLICANT: VAN REMSBURG, Estrelita J.
TITLE OF INVENTION: POLYMUCLECTIDES ENCODING ANTIGENIC HIV TYPE C
TITLE OF INVENTION: POLYMUCLECTIDES, POLYPEPTIDES AND USES THEREOF
; TITLE OF INVENTION: POLYMUCLECTIDES, POLYPEPTIDES AND USES THEREOF
; TITLE OF INVENTION: POLYMPEPTIDES, POLYPEPTIDES AND USES THEREOF
; TITLE OF INVENTION: POLYMPEPTIDES, POLYPEPTIDES AND USES THEREOF
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B 8	B &	P 5	S B 2	) B &	D &	B &	B &	B &	B &	dg VQ	р Q	g 29	B 55	DP QV	DD QV	B Q	<u> </u>	рb
1378 CCCCCCCGAGAGCTTCCGCTTCGAGGAGCCACCCCCCCCC	18 GECCCGGCAACTTCCTGCAGAACCGCAGCCGAGCCCACCGCCGCGAGCCCACCGCCG	ANGENTISCRECURS CONTROLLED THE TREE TO ANGENT SERVICE TO THE TREE		4 4 3			958 GTGCAGAACGCCAACCCGGACTGCAAGACCATCCTGGGGGGTCTCGGGCCCCGGGGGCCACC 1017	898 ACCCTGCGCGCCGAGCAGGCCACCCAGGACGTGAAGAACTGGATGACCGAGACCCTGCTG 957	838 CTGGACATCCGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAG 897	778 AAGCGGTGGATCATCCTGGGCCTGAACAAGATGGTGCGGATGTACAGCCCCGTGAGCATC 837	718 CTGCAGGAGCAGATCGCCTGGATGACCAGCAACCCCCCGTGCCCGTGGGCGACATCTAC 777	658 GTGGCCCCCGGCCAGATGCGCGAGCCCCCGCGGCAGCAGCAGCGGCGCGCGC	598 GACACCATCAACGAGGAGGCCGCGAGTGGGACCGCCTGCACCCCGTGCAGGCCGGCC	538 GACCTGAACACGATGTTGAACACCGTGGGCGGCCACCAGGCCGCCATGCAGATGCTGAAG 597	478 GCCTTCAGCCCCGAGGTGATCCCCCATGTTCACCGCCCTGAGCGAGGGCGCCACCCCCCCAG 537	418 GTGCACCAGGCCATCAGCCCCCGCACCCTGAACGCCTGGGTGAAGGTGATCGAGGAGAAG 477	361 GCCGACGGCAAGGTGAGCCAGAACTACCCCATCGTGCAGAACCTGCAGGGCCAGATG 417	307 CTGGACAAGATCGAGGAGGAGCAGAACAAGTGCCAGCAGAAGATCCAGCAGGCCGAGGCC 366

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RESULT 11

US-10-190-435-19

Sequence 19, Application US/10190435

Publication No. US20030143248A1

GENERAL INFORMATION:

APPLICANT: ZUR MEGEDE, Jan

APPLICANT: LIAN, Ying

APPLICANT: ENGELBRECHT, Susan W.

APPLICANT: VAN RESUSURG, Batrelita J.

APPLICANT: VAN RESUSURG, Batrelita J.

APPLICANT: VAN RESUSURG, BETTELITE ENCODING ANTIGENIC HIV TYPE C

TITLE OF INVENTION: POLYMUCLEOTIDES POLYPEPTIDES AND USES THEREOF

FILE REFERENCE: PP18133.003 / 2302-18133

CURRENT APPLICATION NUMBER: US/10/190,435

CURRENT FILING DATE: 2002-12-30

NUMBER OF SEQ ID NOS: 319

SOFTWARE: Patentin Ver. 2.0
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Best Local (
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TYPE: DNA
TYPE: DNA
ORGANISM: Artificial Sequence
ORGANISM: Artificial Sequence
FEATURE:
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: GagRTmutTatRevNef_C
07HER 10-190-435-19
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Pred. No. 2.5e-265;
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Sequence 14, Application US/10190305A

Publication No. US20030198621A1

GENERAL INPORMATION:
APPLICANT: ZUR MEGEDE, Jan
APPLICANT: LIAN, Ying
APPLICANT: LIAN, Ying
TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV
TITLE OF INVENTION: TYPE C POLYPEPTIDES, POLYPEPTIDES AND
FILE REFERENCE: 2302-18702 / 18702.002
CURRENT APPLICATION NUMBER: US/10/190,305A
CURRENT FILING DATE: 2002-07-05
NUMBER OF SEQ ID NOS: 93
SOPTWARE: Patentin Ver. 2.0
SEQ ID NO 14
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Best Local Similarity
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OTHER INFORMATION:
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TYPE: DNA
ORGANISM: Artificial Sequence
PEATURB:
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                                                               GACACCATCAACGAGGAGGCCGCCGAGTGGGACCGCGTGCACCCCGTGCACGCCGGCCCCC
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Pred. No. 2.5e-265;
0; Mismatches 78;
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RESULT 13
US-10-190-435-35
(Sequence 35, Application US/10190435
; Sequence 35, Application US/10190435
; Publication No. US20030143248A1
; Publication No. US20030143248A1
; GENERAL INFORMATION:
    APPLICANT: ZUR MEGEDE, Jan
    APPLICANT: BARNETT, Susan W.
    APPLICANT: LIAN, Ying
    APPLICANT: LIAN, Ying
    APPLICANT: VAN RESUBURG, Estrelita J.
    TITLE OF INVENTION: POLYNUCLECTIDES ENCODING ANTIGENIC HIV TYPE C
    TITLE OF INVENTION: POLYPERTIDES, POLYPEPTIDES
    FULL REFERENCE: PP18133.003 / 2302-18133
; CURRENT APPLICATION NUMBER: US/10/190,435
; CURRENT FILING DATE: 2002-12-30
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Query Match
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ORGANISM: Artificial Sequence
PEATURE:
OTHER INFORMATION: Description of Artificial Sequence:
OTHER INFORMATION: gp160mod.TV1.dV1V2-gagmod.EW965
3-10-190-435-35
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SOPTWARE: PatentIn Ver. 2
SEQ ID NO 35
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Publication No. US20030143248A1

GENERAL INFORMATION:
APPLICANT: ZUR MEGEDE, Jan
APPLICANT: BARNETT, Susan W.
APPLICANT: ENGELBRECHT, Susan W.
APPLICANT: ENGELBRECHT, Susan
APPLICANT: VAN RENSBURG, Estrelita J.
TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C
TITLE OF INVENTION: POLYNUCLEOTIDES, POLYPEPTIDES AND USES THEREOF
FILE REFERENCE: PP18133.03 / 2302-18133
CURRENT APPLICATION NUMBER: US/10/190,435
CURRENT FILING DATE: 2002-12-30
NUMBER OF SEQ ID NOS: 319
SOFTWARE: Patentin Ver. 2.0
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                                                                     LENGTH: 4606
TYPE: DNA
ORGANISM: Artificial S
FEATURE:
                                  OTHER INFORMATION: Description of Artificial Sequence: OTHER INFORMATION: gp160mod.TV1.dV1-gagmod.BW965
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CTGGAGGAGATGATGACCGCCTGCCAGGGCGTGGGCCGCCCCGGCCAAGGCCCCGCGTG 1077
                            GTGCAGAACGCCAACCCCGACTGCAAGACCATCCTGCGCGCTCTCGGCCCCGGCGCCAGC
                                          GTGCAGAACGCCAACCCCGACTGCAAGACCATCCTGCGCGCTCTCGGCCCCGGCGCCCACC
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Pred. No. 2.5e-265; 
0; Mismatches 78; Indels 36;
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                                                                                                                                                                                                                                                       Sequence 36. Application US/10190435

Publication No. US20030143248A1

GENERAL IMPORMATION:
APPLICANT: ZUR MEGEDE, Jan
APPLICANT: BARNETT, SUBBAN W.
APPLICANT: BARNETT, SUBBAN W.
APPLICANT: ENGELBRECHT, SUBBAN W.
APPLICANT: VAN RENSEURG, Betrelita J.
TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C
TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF
FILE REFERENCE: PP18133.003 / 2302-18133
CURRENT APPLICATION NUMBER: US/10/190,435
CURRENT FILING DATE: 2002-12-30
NUMBER OF SEQ ID NOS: 319
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 36
LENGTH: 4615
                                                                                                                                                                     TYPE: DAA

ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence:
OTHER INFORMATION: gp160mod.TV1.dV2-gagmod.BW965
US-10-190-435-36
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                                                                                                              Query Match 84.5%; Score 1275.2; DB 15; Length 4615; Best Local Similarity 92.5%; Pred. No. 2.5e-265; Matches 1398; Conservative 0; Mismatches 78; Indels 36;
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                CTGCGCCCCGGCGGCAAGAAGCACTACATGCTGAAGCACCTGGTGTGGGCCAGCCGGGAG
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1138 ANGGECCCCGGGCGAACGTCAAGTGCTTCAACTGCGGCAAGGAGGGCCACATCGCCAAG	1078 CTGGCCGAGGCGATGAGCCAGGCCAACAGCGTGAACATCATGATGCAGAAGAGCAACTTC	1018 CTGGAGGAGATGATGACCGCCTGCCAGGGCGTGGCGGCGGCCGCCGGCCACAAGGCCCGGCCACAAGGCCCCGGCCACAAGGCCCCGGCCACAAGGCCCCGGCCACAAGGCCCCGGCCACAAGGCCCCGCCAGGAGAATGACCGCCTGCCAGGGCGTGGGCGGCCCAGCCACAAGGCCCCGGCCAGCACAAGGCCCCGGCCACAAGGCCCCGGCCACAAGGCCCCGGCCACAAGGCCCCGGCCACAAGGCCCCGGCCACAAGGCCCCGGCCACAAGGCCCCGGCCACAAGGCCCCGGCCACAAGGCCCCGGCCACAAGGCCCCGGCCACAAGGCCCCGGCCACAAGGCCCCGGCCACAAGGCCCCGGCCACAAGGCCCCGGCCACAAGGCCCCGGCCAGCAAGGCCCCGGCCAGCAAGGCCCCGGCCAGCAAAGGCCCCGGCCAGCAAGGCCCCGGCCAGCAAAGGCCCCGGCCAGCAAAGGCCCCGGCCAGCAAAGGCCCCGGCCAGCAAAGGCCCCGGCCAGCAAAGGCCCCGGCCAGCAAAGGCCCCGGCCAGCAAAGGCCCCGGCCAGCAAAGGCCCCGGCCAGCAAAGGCCCCGGCCAGCAAAGGCCCCGGCCAGCAAAGGCCCCGGCCAGCAAAGGCCCCGGCCAGCAAAGGCCCCGGCCAGCAAAGGCCCCGGCCAGCAAAGGCCCCGGCCAACAA	958 GTGCAGAACGCCAACCCCGACTGCAAGACCATCCTGCGCGCTCTCGGCCCCCGGCGCCC 	898 ACCCTGCGCGCCGAGCAGGCCACCCAGGACGTGAAGAACTGGATGACCGAGACCCTGCTG	838 CTGGACATCCGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAG	778 AAGCGGTGGATCATCCTGGGCCTGAACAAGATCGTGCGGATGTACAGC	18 CTGCAGGAGCAGATCGCCTGGATGACCAGCAACCCC	658 GTGGCCCCGGCCAGATGCGCGACCCCCGCGGCAACATCGCCGGCGCGCCACCAGCAC	598 GACACCATCAACGAGGAGGCCGCCGAGTGGGACCGCCTGCACCCCCGTGCAGGC	538 GACCTGAACACGATGTTGAACACCGTGGGCGCCACCAGGCCGCCATGCAGATGCTGAAG	478 GCCTTCAGCCCCGAGGTGATCCCCATGTTCACCCCCTGAGCGAGGGCCCACCCC	418 GTGCACCAGGCCATCAGCCCCCGCACCCTGAACGCTGAGGTGAAGGTGATCGAGGAGAAG	361 GCCGACGGCAAGGTGAGCCAGAACTACCCCATCGTGCAGAACCTGCAGGGCCAGATG	301 CTGGACAAGATCGAGGAGGAGGAGAACAAGTCCCAGGAGAAGACCCAGCAGGAGGAGAGAGA	241 ACCGTGGCCACCCTGTACTGCGTGCACGCCGGCATCGAGGTCCGCGACACCCTGTACTGCGTGCACGCGGAGAAGATCGAGGTCCGCGACAACACCCTGTACTGCGTGCACGAGAAGATCGAGGAGAGATCGACGACACACC	181 ATGAAGCAGCTGCAGCCCGCCCTGCAGACCGGCACCGAGGAGCTGCGCAGCCTGTACAA	121 CTGGAGGGCTTCGCCCTGAACCCCGGCCTGGTGGAAGACCGGCGGAGGGCTGCAAGCAGAT
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Search completed: June 1, 2004, 14:25:19 Job time: 703 secs

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIBS

Result No.	Score	Query Match	Length	DB B	ID	Description
1	1509	100.0	1509	w	AAA51610	syn
N	1509	100.0	1509	σ	AAL44549	Aa144549 HIV-1 p55
w	1509	100.0	1509	σ	ABL39954	Abl39954 Synthetic
4	1491.4	98.8	1509	σ	ABL39958	Abl39958 Synthetic
s		98.7	1509	w	AAA51626	Aaa51626 HIV codon
o	1489.8	98.7	1509	σ	AAL44553	Aa144553 HIV-1 p55
7	1297.6	86.0	1494	σ	ABL39972	Abl39972 Synthetic
8	1294.8	85.8	1491	σ	ABL40020	Abl40020 Synthetic
9	1276.8	84.6	1479	w	AAA51609	Aaa51609 HIV synth
10	1276.8	84.6	1479	σ	AAL44548	Aa144548 HIV-1 p55
11	1276.8	84.6	1479	σ	ABL39953	Abl39953 Synthetic
12	1275.2	84.5	3162	φ	ADC13239	Adc13239 DNA of HI
13	1275.2		3462	9	ADC13237	Adc13237 DNA of HI
14	1275.2		4419	7	ACA03523	Aca03523 Synthetic
15	1275.2		4419	9	ADC13240	Adc13240 DNA of HI
16	1275.2	84.5	4615	9	ADC13257	Adc13257 DNA of HI
17	1275.2	84.5	4702	ø	ADC13259	Adc13259 DNA of HI
18	1275.2	84.5	4716	7	ACA03522	Aca03522 Synthetic
19	1275.2	84.5	4716	9	ADC13238	
20	1273.6	84.4	2742	7	ACA03524	Aca03524 Synthetic
21	1273.6	84.4	2742	9	ADC13241	•
22	1273.6	84.4	3930	9	ADC13230	Adc13230 DNA of HI
23	1273.6	84.4	3930	9	ADC13231	•

45 1199.	44 1199.4	43 1199.4			_	39 1201		37 1202.2					1270	31 1270.				1272	1273		24 1273.
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3205	2799	2799	4766	4689	4608	4472	1515	4288	4546	1479	1479	1479	2742	2742	5184	5184	4713	4713	5145	5145	3930
7 ACC78492	7 ACC78493	7 ACA03520	3 AAA70470	3 AAA70471	3 AAA70473	3 AAA70472	3 AAA70412	4 AAH20868	9 ADC13255	6 AAL44552	6 ABL39957	3 AAA51625	9 ADC13278	7 ACA03590	9 ADC13279	7 ACA03591	9 ADC13280	7 ACA03592	9 ADC13233	7 ACA03521	9 ADC13232
Acc78492	Acc78493	Aca03520	Aaa70470	Aaa70471	Aaa70473	Aaa70472	Aaa70412	Aah20868	Adc13255	Aal44552	Ab139957	Aaa51625	Adc13278	Aca03590	Adc13279	Aca03591	Adc13280	Aca03592	Adc13233	Aca03521	Adc13232
HIV GagRT	HIV GagTa	Synthetic	HIV bicis	HIV bicis	~	HIV bicis	-	HIV-1 sub	DNA of HI	HIV-1 p55.	Synthetic	HIV codon	DNA of HI	7	DNA of HI	the	DNA of HI	Ē	DNA of HI	the	DNA of HI

## ALIGNMENTS

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RESULT 1
30-DEC-1999;
                                                                                                                                                                                     Gag; expression cassette; antigenic; type C; HIV; Env; synthetic;
DNA immunization; packaging cell line; antigen presentation; ss.
                                                                                                                                                                                                                                                                                               31-OCT-2000
                                            06-JUL-2000.
                                                                                    WO200039304-A2
                                                                                                                           Synthetic.
                                                                                                                                               Human immunodeficiency virus; type C strain AF110967
                                                                                                                                                                                                                                                       HIV synthetic Gag polymucleotide.
                                                                                                                                                                                                                                                                                                                                            AAA51610;
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99WO-US031273.
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Barnett S, 31-DEC-1998; 01-SEP-1999; (CHIR ) CHIRON CORP. Zur Megede 98US-0114495P. 99US-0152195P. Ç

Polynucleotide encoding antigenic type C HIV Gag polypeptide or a HIV Env polypeptide and the polypeptide useful for immunizing a mammal especially human against HIV.

WPI; 2000-452401/39.

Claim 2; Page 93; 113pp; English.

Expression cassettes comprising a polynucleotide encoding antigenic type C human immunodeficiency virus (HIV) Gag or Env polypeptides are useful in DNA immunization, generation of packaging cell lines and production of Gag- and/or Env-containing proteins. Synthetic Env and Gag expression cassettes exhibit increased potency for induction of cytotoxic T-lymphocyte (CTL) responses by DNA immunization. Gag of HIV-1 self-assemble into non-infectious virus-like particles which are used as a matrix for the proper presentation of an antigen entrapped or associated to the immune system of the host

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HIV; ds; vaccine; gene; immune response; microparticle; adsorbent surface; poly(alpha-hydroxy acid); polyhydroxy butyric polycaprolactone; polyorthoester; polycyanoacrylate; detergent; submicron emulsion; viral infection; bacterial infection; parasitic infection; HIV-1 p55gag polypeptide.
                                                                                                                    28-SEP-2001, 2001WO-US030540
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The invention relates to a method of raising an immune response in a host animal. The method of the invention comprises administering a microparticle that has an adsorbent surface to which a first biologically active macromolecule (e.g. a nucleic acid) has been adsorbed. The microparticle comprises a polymer microparticle of poly(alpha-hydroxy acid), a polyhdroxy butyric acid, a polycaprolactone, a polyporthoester, a polycyanoacrylate, a detergent, and submicron emulsion. The method/microparticle of the invention is useful for immunising a host animal against viral, bacterial or parasitic infections. The present DNA sequence encodes a HIV-1 p55gag polypeptide. (Updated on 29-AUG-2003 to standardise OS field)
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GCCCCCGGCCAGATGCGCGACCCCCGCGGCAGCGACATCGCCGGCGCCACCAGCACCCTG
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RESULT 3 ARI39954 ID ABL39954 standard; DNA; 1509 BP.  XX AC ABL39954; XX AC ABL39954; XX Synthetic Gag polynucleotide sequence SEQ ID NO:4. XX XX BE Syntheticiency virus type C; antigenic HIV type C protein; XX XX KW immunogenic; immunisation; 9a9; pol; vif; vpr; tat; rev; vpu; env; nef; XX XX XX XX Immunostimulant; gene therapy; gene; ds. XX XX XX Human immunodeficiency virus; type C.	1441 CGCGAGCCCTACCGCAAGCCCTGACCGCCCTGCGCAGCCTGTTCGGCAGCGCCCCTG 1500 1501 AGCCAGTAA 1509	81 81 41	1261 GACTIGCACCGAGCGCCAGGCCAACTTCCTTGGGCAAGATCTTGGCCCAGCCACAGAGGCCGC 1320	141 GGCCCCCGGCGCAACGTCAAGTGCTTCAACTGCGGCAAGAAGGAGGGCCACATCGCCAAGAAC 120	1021 GAGGAGATGATGACCGCCTGCCAGGGCGTGGGCGGCCCGCGCACAAGGCCCCGCGGCTGCTG 1080	901 CTGCGCCCGAGCAGGCCACCCAGGACGTGAAGAACTCGATGACCCAGAGACCCTGCTGGTG 960	721 CAGGAGCAGATCGCCTGGATGACCAGCAACCCCCCCGTGGCCGACATCTACAAG 780

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                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present invention describes expression cassettes comprising a polynuclectide sequence encoding a polypeptide comprising immunogenic HI type C polypeptides. The expression cassettes comprise any of the HIV type C sequences encoding Gag, Pol, Vif, Vpr, Tat, Rev, Vpu, Env or Nef (I) (I) have immunostimulant activity and can be used in gene therapy. The HIV type C polynucleotides are useful in applications including DNA immunisation, generation of packaging cell lines, and production of HIV Type C proteins. The polynucleotides are particularly useful in gene therapy and DNA immunisation applications. ABL39942 to ABL40054 and ABB06204 to ABB06215 represent sequences used in the exemplification of the present invention
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Best Local Similarity
Matches 1498; Conserv
                                                                                                                                                                                                                                                                                                                            The present invention describes expression cassettes comprising a polynucleotide sequence encoding a polypeptide comprising immunogenic HIV type C polypeptides. The expression cassettes comprise any of the HIV type C sequences encoding Gag, Pol, Vif, Vpr, Tat, Rev, Vpu, Env or Nef (I). (I) have immunostimulant activity and can be used in gene therapy. The HIV type C polynucleotides are useful in applications including DNA immunisation, generation of packaging cell lines, and production of HIV Type C proteins. The polynucleotides are particularly useful in gene therapy and DNA immunisation applications. ABL39942 to ABL40054 and ABB06204 to ABB06215 represent sequences used in the exemplification of
                                                                                                                                                                                                                                                                                         Sequence 1509 BP; 321 A; 560 C; 470 G; 158 T; 0 U; 0 Other;
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immunogenic; immunisation; gag; pol; vif; vpr;
immunostimulant; gene therapy; gene; ds.
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	TGGGCGCCGCGCCAGCATCCTGCGCGGCGAGAAGCTGGACAAGTGGGAGAAGATCCGC 60	Query Match 98.7%; Score 1489.8; DB 3; Length 1509; Best Local Similarity 99.2%; Pred. No. 8.6e-175; Matches 1497; Conservative 0; Mismatches 12; Indels 0; Gaps 0;	immune system ce 1509 BP; 32:	lymphocyte (CTL) responses by DNA immunization. Gag of HIV-I self- assemble into non-infectious virus-like particles which are used as a matrix for the proper presentation of an antigen entrapped or associated	in DNA immunization, generation of packaging cell lines and production of Gag- and/or Env-containing proteins. Synthetic Env and Gag expression cassettes exhibit increased potency for induction of cytotoxic T-	Disciosure; rage 104; 113pp; English.  Expression cassettes comprising a polynucleotide encoding antigenic type C human immunodeficiency virus (HIV) Gag or Env polypeptides are useful			CHIRON CORP.	30-DEC-1999; 99WO-US031273. 31-DEC-1998; 98US-0114495P. 01-SEP-1999; 99US-0152195P.	WO200039304-A2. 06-JUL-2000.	n immunodeficiency virus; type C strain AF110967.	HIV codon-optimized synthetic Gag polynucleotide.  Gag; expression cassette; antigenic; type C; HIV; Env; synthetic;  nua (mmunitation: packaging Cell line; antigen presentation; ss.	AAA51626; 31-OCT-2000 (first entry)	RBSULT 5 AAA51626 ID AAA51626 standard; DNA; 1509 BP.	1501 AGCCAGTAA 1509          1501 AGCCAGTAA 1509	GGGAGCCTACGGCAGCCCCTGACCGCCCTGCGCAGCCTGTTCGGCAGCGGCCCCTG	CCCGCCGAGAGCTTCCGCTTCGAGGAGACCACCCCCCCAAGCAGGAGCCCAAGGACCCCCC	
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Best Local Simi
Matches 1497;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The invention relates to a method of raising an immune response in a host animal. The method of the invention comprises administering a microparticle that has an adsorbent surface to which a first biologically active macromolecule (e.g. a nucleic acid) has been adsorbed. The microparticle comprises a polymer microparticle of poly(alpha-hydroxy acid), a polyhydroxy butyric acid, a polycaprolactone, a polyorthoester, a polycyanoacrylate, a detergent, and submicron emulsion. The method/microparticle of the invention is useful for immunising a host animal against viral, bacterial or parasitic infections. The present DNA sequence encodes a HIV-1 p55gag polypeptide. (Updated on 29-AUG-2003 to standardise OS field)
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Ulmer J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A microparticle to which a biologically active macromolecule is adsorbed for use as a vaccine composition to treat viral, bacterial or parasitic infections, comprises a polymer microparticle, a detergent and a
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                                                                                                                                                                                                  The present invention describes expression cassettes comprising a polynucleotide sequence encoding a polypeptide comprising immunogenic HIV type C polypeptides. The expression cassettes comprise any of the HIV type C sequences encoding Gag, Pol, Vif, Vpr, Tat, Rev, Vpu, Env or Nef (I). (I) have immunostimulant activity and can be used in gene therapy. The HIV type C polynucleotides are useful in applications including DNA immunisation, generation of packaging cell lines, and production of HIV Type C proteins. The polynucleotides are particularly useful in gene therapy and DNA immunisation applications. ABL39942 to ABL40054 and ABB06204 to ABB06215 represent sequences used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New polynucleotides encoding antigenic HIV applications including DNA immunization or lines, particularly in gene therapy.
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Query Match
Best Local Similarity
Matches 1401; Conserv
                                                                                                                                                                The present invention describes expression cassettes comprising a polynucleotide sequence encoding a polypeptide comprising immunogenic HIV type C polypeptides. The expression cassettes comprise any of the HIV type C sequences encoding Gag, Pol, Vif, Vpr, Tat, Rev, Vpu, Env or Nef (I). (I) have immunostimulant activity and can be used in gene therapy. The HIV type C polynucleotides are useful in applications including DNA immunisation, generation of packaging cell lines, and production of HIV Type C proteins. The polynucleotides are particularly useful in gene therapy and DNA immunisation applications. ABL39942 to ABL40054 and ABB06204 to ABB06215 represent sequences used in the exemplification of the present invention
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(UYST-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New polynucleotides encoding antigenic HIV Type C polypeptides, useful applications including DNA immunization or generation of packaging cell lines, particularly in gene therapy.
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                                                                                                             Sequence 1491 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 8; Fig 70; 233pp; English
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85.8%;
ilarity 92.7%;
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                                                                                                             557 C; 457 G; 158
Score 1294.8;
Pred. No. 7.3e
0; Mismatches
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94.8; DB 6;
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tches 87;
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                      Polymucleotide encoding antigenic type polypeptide and the polypeptide useful human against HIV.
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*tag= a 
/*tag= a 
/*tag= a 
/product= "Synthetic_Gag"
/note= "Codon usage pattern was modified and inhibitory 
elements (INS) and RRB sites were inactivated resulting 
in improved expression"
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1. .1479
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                                                C HIV Gag polypeptide or a HIV Env for immunizing a mammal especially
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Best Local Similarity
Matches 1399; Conserv
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Pred. No. 1.2e-148;
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29-AUG-2003 08-NOV-2002 (revised)
(first entry)

HIV-1 p55gag polypeptide coding sequence

HIV; ds; vaccine; gene; immune response; microparticle; adsorbent surface; poly(alpha-hydroxy acid); polyhydroxy butyric polycaprolactone; polyorthoester; polycyanoacrylate; detergent; submicron emulsion; viral infection; bacterial infection; parasitic infection; HIV-1 p55gag polypeptide. acid;

immunodeficiency Arrive

WO200226209-A2

781

AAGCGGTGGATCATCCTGGGCCTGAACAAGATCGTGCGGATGTACAGCCCCGTGAGCATC

840

657 660 717

720 777

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Query Match
Best Local Similarity
Matches 1399; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The invention relates to a method of raising an immune response in a host animal. The method of the invention comprises administering a microparticle that has an adsorbent surface to which a first biologically active macromolecule (e.g. a nucleic acid) has been adsorbed. The microparticle comprises a polymer microparticle of poly(alpha-hydroxy acid), a polyhydroxy butyric acid, a polycaprolactone, a polyorthoester, a polycyanoacrylate, a detergent, and submicron emulsion. The method/microparticle of the invention is useful for immunising a host animal against viral, bacterial or parasitic infections. The present DNA sequence encodes a HIV-1 p55gag polypeptide. (Updated on 29-AUG-2003 to standardise OS field)
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Ulmer J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 1479
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30-AUG-2001;
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                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 1479 BP; 325 A; 529 C; 463 G; 162
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                                                                                                                                                                                                               The invention relates to a novel expression cassette comprising a polymucleotide sequence encoding a polypeptide including an HIV Gag, Env, Int, Nef, pl5RnaseH, Pol, Tat, Prot, or Rev polypeptide. The novel expression cassette can be used to treat HIV type C by gene therapy or used in the development of a vaccine. The gene delivery vector is administered intramuscularly, intramucosally, intranasally, subcutaneously, intradermally, transdermally, intraveginally, intrarectally, orally or intravenously. The expression cassette is useful for immunisation, generating packaging cell lines and producing HIV polypeptides. This polynucleotide sequence represents the DNA of an HIV Type C related sequence of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New expression cassette comprising a polynucleotide sequence encopolypeptide including an HIV Gag, Env. Int, Nef, pi5knaseH, Pol, Prot, or Rev polypeptide, useful for immunization, or generating packaging cell lines.
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                                                                                                                                                                                    Sequence
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1398; Conserv
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HIV type C; gene therapy; vaccine; immunisation; HIV; ds.
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31-AUG-2001; 2001US-0316860P.
16-JAN-2002; 2002US-0349871P.
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intrarectally, orally or intravenously. The expression cassette ifor immunisation, generating packaging cell lines and producing polypeptides. This polynucleotide sequence represents the DNA of Type C related sequence of the invention. is useful Ë

790 A; 1198 C; 1068 G; 406 Ŧ, 0 Ų; 0 Other;

Conservative 84.5%; 92.5%; Score 1275.2; DB 9 Pred. No. 1.6e-148; 0; Mismatches 78; 9; Indels Length 36; Gaps

CTGCAGGAGCAGATCGCCTGGATGACCAGCAACCCCCCGTGGCCGTGGGCGACATCTAC ACCCTGCGCGCGAGGAGGCCACCCAGGACGTGAAGAACTGGATGACCGAGACCCTGCTG CTGGACATCCGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAG AAGCGGTGGATCATCCTGGGCCTGAACAAGATCGTGCGGATGTACAGCCCCGTGAGCATC GTGCACCAGGCCATCAGCCCCCGCACCCTGAACGCCTGGGTGAAGGTGATCGAGGAGAAAG GCCGAC---GGCAAGGTGAGCCAGAACTACCCCATOGTGCAGAACCTGCAGGGCCAGATG CTGCGCCCCGGCGCAAGAAGCACTACATGCTGAAGCACCTGGTGTGGGCCAGCCGCGAG CTGGACAAGATCGAGGAGGAGCAGAACAAGTCCCAGCAGAAGACCCCAGCAGGCCAAGGAG CTGGAGGGCTTCGCCCTGAACCCCCGGCCTGCTGGAGACCGGCCGAGGGCTGCAAGCAGATC ATGGGCGCCCGCGCCAGCATCCTGCGCGGGGGAGAAGCTGGACAAGTGGGAGAAGATCCGC CTGGACATCAAGCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAG GACCTGAACACGATGTTGAACACCGTGGGCGGCCACCAGGCCGCCATGCAGATGCTGAAG GACCTGAACACGATGTTGAACACCGTGGGCGGCCACCAGGCCGCCATGCAGATGCTGAAG GCCTTCAGCCCCGAGGTGATCCCCCATGTTCACCGCCCTGAGCGAGGGGGCGCCACCCCCCAG ACCGTGGCCACCCTGTACTGCGTGCACGAGAAGATCGAGGTCCGCGACACCAAGGAGGCC ACCGTGGCCACCCTGTACTGCGTGCACGCCGGCATCGAGGTCCGCGACACCAAGGAGGCC ATGAAGCAGCTGCAGCCCGCCCTGCAGACCGGCACCGAGGAGCTGCGCAGCCTGTACAAC CTGGAGAAGTTCGCCCTGAACCCCGGCCTGCTGGAGACCAGCGAGGGCTGCAAGCAGATC ATGGCGCCCGCCAGCATCCTGCGCGGGGCAAGCTGGACGCCTGGGAGCGCATCCGC 897 846 837 360 957 906 786 777 726 717 999 657 909 546 486 477 426 417 366 306 300 186 180 126 120 597 537 246 240 66 60

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16-JAN-2002; 2002US-0349728P.
16-JAN-2002; 2002US-0349793P.
16-JAN-2002; 2002US-0349871P.
                                                                                                                                                                                       Immunogenic HIV polypeptide; human immunodeficiency virus; HIV; vaccine; gene therapy; packaging cell line; humoral immune response; cellular immune response; gene delivery vector; DNA immunisation; ds.
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New synthetic polypeptides, polypeptides, generating hummespecially hummespeciall
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Example 1; Fig 11; 262pp; English.

The invention describes a synthetic polynucleotide encoding 2 or more immunogenic HIV polypeptides, where at least 2 of the polypeptides are derived from different HIV subtypes. The polynucleotide is useful for immunisation, generation of packaging cell lines, or production of HIV polypeptides. The polynucleotide and its encoded proteins are useful as immunogenic compositions or vaccines for generating humoral or cellular immune responses against HIV in a subject, or for inducing neutralising antibodies against HIV. The gene delivery vector comprising the polynucleotide is also useful for DNA immunisation of, or for generating an immune response (e.g. a humoral or cellular immune response in, a subject such as a mammal, particularly a human. This sequence encodes a human immunodeficiency virus immunogenic peptide

Sequence 4419 BP; 980 A; 1582 C; 1371 G; 486 T; 0 U; 0 Other;

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Length 4419;

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GACCTGAACACGATGTTGAACACCGTGGGCGGCCACCAGGCCGCCATGCAGATGCTGAAG
                                                                                  GCCTTCAGCCCCGAGGTGATCCCCATGTTCACCGCCCTGAGCGAGGGGGCCACCCCCCAG
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                                            GACCTGAACACGATGTTGAACACCGTGGGGGGGCCACCAGGCCGCCATGCAGATGCTGAAG
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cassette; HIV Gag; Env; Int; Nef; p15RnaseH; Pol; Tat; Prot;
                construct GagRTmutTatRevNef_C SEQ ID NO
                                 (first entry)
                                                                 DNA;
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31-AUG-2001; 2001US-0316860P
16-JAN-2002; 2002US-0349871P
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(UYST-) UNIV STBLLENBOSCH.
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Barnett SW,
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Lian Y,
Engelbrecht
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New expression cassette comprising a polynucleotide sequence encoding a polypeptide including an HIV Gag, Env, Int, Nef, pl5RnaseH, Pol, Tat, Prot, or Rev polypeptide, useful for immunization, or generating packaging cell lines.

Disclosure; Fig 16; 301pp; English.

The invention relates to a novel expression cassette comprising a polynucleotide sequence encoding a polypeptide including an HIV Gag, Env, Int, Nef, pl5RnaseH, Pol, Tat, Prot, or Rev polypeptide. The novel expression cassette can be used to treat HIV type C by gene therapy or used in the development of a vaccine. The gene delivery vector is administered intramuscularly, intramucosally, intramasally, subcutaneously, intradermally, transdermally, intravaginally, intrarectally, orally or intravenously. The expression cassette is useful for immunisation, generating packaging cell lines and producing HIV polypeptides. This polynucleotide sequence represents the DNA of an HIV Type C related sequence of the invention.

SQ Sequence 4419 BP; 980 A; 1582 C; 1371 G; 486 T; 0 U; 0 Other;

Query Match 84.5%; Score 1275.2; DB 9; Length 4419;

Best Local Similarity 92.5%; Pred. No. 1.5e-148;

Matches 1398; Conservative 0; Mismatches 78; Indels 36; Gaps

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AAGGACTGCACCGAGGCCAGGCCAACTTCCTGGGCAAGATCTGGCCCAGCCACAAGGGC 1317	258 264
AACTIGCOGCGCCCCCCCAAGAAGGGCTGCTGGAAGTIGCGGCAAGGAGGGCCACCAGATG 1257	-2-0
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ACCGTGGGCGGCCACCAGGCCGCCATGCAGAT 	538 GACCTY       547 GACCTY
GCCTTCAGCCCCGAGGTGATCCCCCATGTTCACCGCCCTGAGCGAGGGCGCCACCCCCCAG 537	478 GCCTTC
GTGCACCAGGCCATCAGCCCCCCCACCCCTGAACGCCTGGGTGAAGGTGATCGAGGAGAAG 477 	418 GTGCA

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Db 1474 CTGAGCCAGAAA 1485
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Search completed: June 1, 2004, 11:31:51 Job time: 621 secs

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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 2000000000
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Perfect score:
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11184.104 Million cell updates/sec
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SUMMARIES

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Regult No.	Score	Query Match	Length	B	ID	Description
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16	1201	•	4472	σ	BD263697	97 I
17	N	•	4472	6	AR373380	90
18	1201	•	4608	י סי	BD263698	BD263698 Improved
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26	1186		9166	σ.	AX427930	0
27	1170.8	•	9788	σ	AX427936	
28	1145		1539	م	AX306431	Sequence
29	1143.2		. 5	, 12	AF287354	4
بر 11	1119	74.2	9194	ο ο	AX427925	AX427925 Sequence
32	1119	4	9194	σ.	AX427926	6 Sequenc
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34	1117.8	74.1	1847	12	AF202464	64 Synthet
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39	٠	74.1	1865	6	BD263701	
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41	٠	74.1	1865	6	AR373384	73384 S
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45	1103.8	73.1	6816	σ	AX427921	AX42/921 Sequence

## ALIGNMENTS

JOURNAL	TITLE	AUTHORS	REFERENCE		ORGANISM	SOURCE	KEYWORDS	VERSION	ACCESSION	DEFINITION	Locus	AX455888	RESULT 1
polypeptides and uses thereof Patent: WO 0204493-A 4 17-JAN-2002;	Polynucleotides encoding antigenic hiv type c polypeptides,	zur Megede, J., Barnett, S.W., Engelbrecht, S. and van Rensburg, B.	щ	artificial sequences.	synthetic construct	synthetic construct		AX455888.1 GI:21714881	AX455888	Sequence 4 from Patent WO0204493.	AX455888 1509 bp DNA linear PAT 06-JUL-2002		

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/mol type="unassigned DNA"
/db xref="taxon:32630"
/noTe="synthetic Gag of HIV str
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Query Match
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                                                                                                        O'Hagan,D., Otten,G., Donnelly,J.J., Polo,J.M., Singh,M., Ulmer,J. and Dubensky,T.W. Microparticles for delivery of the heterologous Patent: WO 0226209-A 64 04-APR-2002; CHIRON CORPORATION (US)
                                                                                                                                                                                      Human immunodeficiency virus 1 (HIV-1)
Human immunodeficiency virus 1
Viruses; Retroid viruses; Retroviridae; Lentivirus;
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                                                  /organism="Human immunodeficiency
/mol_type="unassigned DNA"
/db_xref="taxon:11676"
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Human immunodeficiency virus 1
Viruses; Retroid viruses; Retroviridae; Lentivirus;
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Sequence 68 from Patent
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AX468548.1 GI:21901378
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                                                                                      CTGCGCCCCGGCGCAAGAAGCACTACATGCTGAAGCACCTGGTGTGGGCCAGCCGGGAG
ATGAAGCAGCTGCAGCCCGCCCTGCAGACCGGCACCGAGGAGCTGCGCAGCCTGTACAAC
                                         CTGGAGGGCTTCGCCCTGAACCCCGGCCTGCTGGAGACCGCCGAGGGCTGCAAGCAGATC
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/mol_type="unassigned DNA"
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                                          ATCGAGGAGGAGGAGCAGAACAAGTCCCAGCAGAAGAAGACCCAGCAGCAGGCCAAGGAG
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AX455935.1 GI:21714919
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Polynuclectides encoding antigenic hiv type c polypeptides,
polypeptides and uses thereof
Patent: WO 0204493-A 51 17-JAN-2002;
CHIRON CORPORATION (US) ; University of Stellenbosch (ZA)
Location/Qualifiers
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artificial sequences.

1 (bases 1 to 1485)
Gao,F., Li,Y., Decker,J.M., Peyerl,F.W., Bibollet-Ruche,F.,
Rodenburg,C.M., Chen,Y., Shaw,D.R., Allen,S., Musonda,R.,
Shaw,G.M., Zajac,A.J., Letvin,N. and Hahn,B.H.
Codon usage optimization of HIV type 1 subtype C gag, pol, onef genes in vitro expression and immune responses in
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REFERENCE 2 (bases 1 to 1485)
AUTHORS Gao, F., Li,Y., Decker,J.M., Bibollet-Ruche,F., Rodenburg,C.M.,
Hahn,B.H.

TITLE Direct Submission
JOURNAL Submitted (16.NOV-2002) Medicine, Duke University Medical Center,
Location/Qualifiers

FEATURES

SOUTCE /organism="synthetic construct"
/mol type="genomic DNA"
/mol type="ge
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Query Match 85.6%; Score 1291.4; DB 12; Length 1485;
Best Local Similarity 92.6%; Pred. No. 1.2e-127;
Matches 1403; Conservative 0; Mismatches 76; Indels 36; Gaps 3;

1 ATGGGCGCCGGCGCAGCATCCTGCGCGCGAAAAGCTGGACAAGTGGAAAAAACCCGC 60

RESULT 8 AX455887 AX455887 1479 bp DNA linear PAT 06 DBFINITION Sequence 3 from Patent WO0204493.	Oy 1495 CCCCTGAGCCAGTAA 1509	OY 1435 AAGGACCGCGAGGCCTTACCGCGAGCCCTGACCGCCCTGCGCAGCCTGTTCCGCCAGCGGCCCTGACCAGCCTGAAGAAGCCCTGTTCCGGCAGCGACCAGCCTGAAGAAGAGCCCTGTTCCGGCAGCGACCAGCCTGAAGAAGAGCCCTGTTCCGGCAGCGACCAGCCTGAAGAAGAGCCCTGTTCCGGCAGCGACCAGCCTGAAGAAGAGCCTGTTCCGGCAGCGACCAGCCTGAACAAGAGCCTGAAGAAGAGCCTGTTCCGGCAGCGACCAGCCTGAAGAAGAGCCTGAAGAGAGCCTGAAGAGAGCCTGAAGAGAGCCTGAAGAGAGCCTGAAGAGAGCCTGAAGAGAGCCTGAAGAGAGCCTGAAGAGAGCCTGAAGAGAGCCTGAAGAGAGCCTGAAGAGAGCCTGAAGAGAGCCTGAAGAGCCTGAAGAGAGCCTGAAGAGAGCCTGAAGAGAGCCTGAAGAGAGCCTGAAGAGAGCCTGAAGAGAGCCTGAAGAGAGCCTGAAGAGAGCCTGAAGAGAGCCTGAAGAGAGCCTGAAGAGAGCCTGAAGAGAGCCTGAAGAGAGCCTGAAGAGAGCCTGAAGAGAGCCTGAAGAGAGAG	QY 1375 GCCCCCCCCCCCCCAAGAAGACTTCCGCTTCGAAGAAACCACCCCCCCC	QY 1315 GGCCGCCCCGGCAACTTCCTGCAGAACCGCAGCGAGCCGCCCCCCAACCGTGCCCACCGTGCCACCGTGCCACCGTGCCACCGTGCCACCGTGCCACCGTGCCAACCTTCCTGCAGAACCG	QY 1255 ATGAAGGACTGCACCGAGGCCAGGCCAACTTCCTGGGCAAGATCTGGCCCAGCCACAAG	OY 1195 AAGAACTGCCGCGCGCCCCCGCAAGAAGGGCTGCTGGAAGTGCGGCAAGGAGGGCCACCAG	OY 1135 TTCHAGGGCCCCCGGGCGAACGTCAACTGCTCAACTGCGGCAAGGAGGGCCACATCGCC	OY 1075 GTGCTGGCCGAGGGCGATGAGCCAGGCCAACAGCGTGAACATCATGATGCAGAAGAGCAAC	QY 1015 ACCCTGGAGGAGATGATGACCGCCTGCCAGGGCGTGGGCGGCCCAGGCCACAAGGCCGCCGCCAGAGGCCCGGCCAGAGGCCACAAGGCCGCC	OY 955 CTGGTGCAGAACGCCAACCCCGACTGCAAGACCATCCTGCGGGGGCTCTCGGGCGCCCGGGGGCCCCGACTGCAGAACACCATCCTGAAGACCATCCTGAAGACCCCGGCGCCCCGGCGCCCCGGCGCCCCGGCGCCCCGGCGC	OY 895 AAGACCCTGCGCGCGAGCAGGCCACCCAGGACGTGAAGAACTGGATGACCGAGAGACCCTG	QY 835 ATCCTGGACATCCGCCAAGGGCCCCTACGCGACTACGTGGACCGCTTCTTC Db 841 ATCCTGGACATCAAGCAGGAGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTC	QY 775 TACAAGCGGTGGATCATCCTGGGCCTGAACAAGATCGTGCGGATGTACAGCCCCGGTGAGC	QY 715 ACCCTGCAGGAGCAGATCGCCTGGATGACCAGCAACCCCCCCGTGCCCGTGGGCGACATC	Oy 655 CCCGTGGCCCCCGGCCAGATGCGCGAGCACCCCGGGCACCATCGCCGGCGCCACCAGC	OY 595 AAGGACACCATCAACGAGGAGGACGCCCGAGTGGGACCGCCTGCACCCCGTGCAGGCCGGC	OY 535 CAGGACCTGAACACGATGTTGAACACCGTGGGCCGCCACGAGGCCGCCATGCAGATGCTG
Oy 658 GTGGC Db 661 ATCGC Oy 718 CTGCA	98	1494 Qy 538 1470 Db 541	1434 Qy 478 1422 Db 481	1374 Qy 418 1362 Db 421	1314 Qy 361 1320 Db 361	1254 Qy 301 1260 Db 301	1194 Qy 241 1200 Db 241	1134 Oy 181 1140 Db 181	1074 Qy 121 1080 pb 121	1014 Qy 61 1020 Db 61	954 Qy 1 960 pb 1	994 Query Match Best Local Simi 900 Matches 1399;	AGC 840 ORIGIN	774 FEATURES SOUTCE	714 TITLE JOURNAL	660 ORGANISM 660 REFERENCE AUTHORS	594 ACCESSION VERSION 600 KEYWORDS SOURCE
GTGGCCCCGGCCAGATGGCGACCCCCGCGGCGACATCGCCGGCGCCCCAGCACC		GACCTGAACACGATGTTGAACACCGTGGGCGGCCACCAGGCCGCCATGCAGATGCTGAAG 597		GTGCACCAGGCCATCAGCCCCCGCACCCTGAACGCCTGGGTGAAGGTGATCGAGGAGAAG 477	GCCGACGGCAAGGTGAGCCAGAACTACCCCATCGTGCAGAACCTGCAGGGCCAGATG 417	CTGGACAAGATCGAGGAGGAGCAGAACAAGTCCCAGCAGGAAGACCCAGCAGCAGGCCAAGGAG 360 	ACCGTGGCCACCCTGTACTGCGTGCACGCCGCGCATCGAGGTCCGCGACACCCAGGAGGCCC 300	ATGAAGCAGCTGCAGCCCGCCCTGCAGACCGGCACCGAGGAGCTGCGCAGCCTGTACAAC 240	CTGGAGGGCTTCGCCCTGAACCCCGGCCTGCTGGAGACCGCCGAGGGCTGCAAGCAGATC 180	CTGCGCCCCGGCGGCAAGAAGCACTACATGCTGAAGCACCTGGTGTGGGCCAGCCGCGAG 120	ATGGGCGCCGCGCAGCATCCTGCGCGGGGAGAAGCTGGACAAGTGGGAGAAGATCCGC 60	84.6%; Score 1276.8; DB 6; Length 1479; larity 92.5%; Pred. No. 4.1e-126; Conservative 0; Mismatches 77; Indels 36; Gaps 4;	/db_xref="taxon:32630" /note="synthetic Gag of HIV strain AF110965"	Location/Qualifiers 11479 /organism="synthetic construct" /mol type="unassigned DNA"	Polynucleotides encoding antigenic hiv type c polypeptides, polypeptides and uses thereof Patent: WO 0204493-A 3 17-JAN-2002; CHIRON CORPORATION (US) ; University of Stellenbosch (ZA)	and van	7 7.1 GI:21714880 ic construct

AX468543 LOCUS DEFINITION Sequence 63 from Patent WO0226209. ACCESSION AX468543 VERSION KEYWORDS SOURCE ORGANISM Human immunodeficiency virus 1 (HIV-1) Viruses; Retroid viruses; Retroviridae; Lentivirus; Primate lentivirus group.  REFERENCE AUTHORS O'Hagan, D., Otten, G., Donnelly, J.J.; Polo, J.M., Barnett, S., Singh, M., Ulmer, J. and Dubensky, T.W. Microparticles for delivery of the heterologous nucleic acids Patent: WO 0226209-A 63 04-APR-2002; CHIRON CORPORATION (US)	Qy         1438 GACCGCGAGCCCTACCGCGAGCCCTGACCGCCAGCCTGTTCGGCAGCGGCCCC 1497           Db         1420 GACCGCGAGACCCTGACCAGCCTGAAGAGCCTGTTCGGCAACGACCCC 1467           Qy         1498 CTGAGCCAGTAA 1509           Db         1468 CTGAGCCAGTAA 1479	Qy         1318 CGCCCCGGCAACTTCCTGCAGAACCGCAGCGAGCCGCCCCCCCACCGTGCCCACCGCC         1377  Db         1318 CGCCCCGGCAACTTCCTGCAGAGCCG	Oy  1198 AACTGCCGGGCCCCCCGCAAGAAGGGCTGCTGGAAGTGCGGCAAGGAGGGCCACCAGATG 1257	Oy 1078 CTGGCCGAGGCGATCAGGCCAGGCCAACAGGCGTGAACATCATGATGCAGAAGAGCAACTTC 1137	Qy 958 GTGCAGAACGCCAACCCCGACTGCAAGACCATCCTGCGGCGCTCTCCGGCCCCGGCGCCACC 1017	Qy 838 CTGGACATCCGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAG 897	
Qy 658 GTGGCCCCGGCCAGATGGGCGACCCCGCGGCAGCACATCGCCGGCGCACCAGCACC	Qy 538 GACCTGAACACGATGTTGAACACCGTGGGCGGCCACCCAGGCCGCCATGCAGATGCTGAAG 597	Qy 418 GTGCACCAGGCCATCAGCCCCGCACCCTGAACGCCTGGGTGAAGGTGATCGAGGAGAAAG 477	Qy  301 CTGGACAAGATCCAGAGAGAGACAAGTCCCAGCAGAAGACCAAGGCCCAAGGAG	Qy 181 ATGAAGCAGCTGCAGCCCTGCAGACCGGCACCGAGGAGCTGCTACAAC 240	Oy  61 CTGCGCCCGGCGCAAGAAGCACTACAATGCTCAAGCACCTGGTGTGGGCCAGCCGCGAG 120		~

Query Match  84.2%; Score 1271.2; DB 6; Length 1479;  Best Local Similarity 91.8%; Pred. No. 1.6e-125;  Matches 1388; Conservative 10; Mismatches 78; Indels 36; Gaps 4;  Matches 1388; Conservative 10; Mismatches 78; Indels 36; Gaps 4;  Oy 1 ATGGGCGCCGCGCGAGCATCCTGCGGCGGCGAGAAGCTGGGAGAAGATCCGC 60	JOURNAL Patent: WO 0226209-A 67 04-APR-2002; CHIRON CORPORATION (US)  PRATURES Location/Qualifiers 11479 /organism="Human immunodeficiency virus 1" /mol_type="unassigned DNA" /db_xref="taxon:11676"		IOCUS AX468547 DBFINITION Sequence 67 from Patent WO0226209. ACCESSION AX468547 VERSION AX468547 VERSION AX468547.1 GI:21901377 KEYWORDS SOURCE Human immunodeficiency virus 1 (HIV-1)	RESULT 10 AX468547	Qy 1498 CTGAGCCAGTAA 1509 	Qy 1438 GACCGCGAGCCCTACCGCGAGCCCCTGACCGCCCCTGCGCAGCCTGTTCGGCAGCGGCCCC 1497	Qy 1378 CCCCCCGCCGAGAGCTTCCGCTTCCGAGGAGACCACCCCCCCAAGCAGGAGCCCAAG 1437	Qy         1318         CGCCCCGGCAACTTCCTGCAGAACCGCAGCGAGCCGAGC	Qy 1258 AAGGACTGCACCGAGCGCCAGCCCAACTTCCTGGGCAAGATCTGGCCCAGCCACAAGGGC 1317	Qy 1198 AACTGCCGCGCCCCCGCAAGAAGGGCTGCTGGAAGTGCGGCAAGGAGGCCACCAGATG 1257	Oy 1138 AAGGGCCCCCGGCGCAACGTCAAGTGCTTCAACTGCGGCAAGGAGGGCCACATCGCCAAG 1197	Qy 1078 CTGGCCGAGGCGATGAGCCAGGCCAACAGCGTGAACATCATGATGCAGAAGAGCAACTTC 1137	Qy         1018         CTYGRAGGAGTGATGATGACCGCCTGCCAGGGGCGTGGGGCCCCGGGCCACAAGGCCCGCGTG         1077	OY 958 GTGCAGAACGCCAACCCCGACTGCAAGACCATCCTGCGCGCTCTCGGCCCCGGCGCCACC 1017	Db 901 ACCCTGCGCGCGAGCAGAGCACCCAGGAGGTGAAGAACTGGATGACCGACACCCTGCTG 960
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Polynucleotides encoding antigenic hiv type c polypep
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Patent: WO 0204493-A 20 17-JAN-2002;
CHIRON CORPORATION (US); University of Stellenbosch
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                                CTGGAGAAGTTCGCCCTGAACCCCGGCCTGCTGGAGACCAGCGAGGGCTGCAAGCAGATC
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zur Megede, J., Chen, M.C., Doe, B., Schaefer, M., Selby, M., Otten, G.R. and Barnett, S.W.

Selby, M., Otten, G.R. and immunogenicity of sequimmunodeficiency virus type 1 gag gene
J. Virol. 74 (6), 2628-2635 (2000)
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Direct Submission
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Db 247 ACCTMGCCACCTGTACTGCACCAGCCATCAGACGTCAAGACCAAGAGGCC 306  Qy 301 CTGGACAAGATCGAGGAGGAGCAGAACAAGTCCCAGCAGAGACCAAGGAGGCCAAGGAGGCCAAGGAGGCCAAGGAGG	Oy  121 CTGGAGGGCTTCGCCCTGAACCCCCGGCCTGCAGAGACCGCGAGGGCTGCAAGCAGATC 180	1 ATGGGGGCCCGGGCCAGCATCCT	ORIGIN  //mol_type="genomic DNA"  ORIGIN  ORIG	Unclassified.  REPERENCE 1 (bases 1 to 1515)  AUTHORS Barnett, S.W., Megede, J., Greer, C. and Selby, M.  TITLE Expression of HTV polypeptides and production of virus-like particles  JOURNAL Patent: US 6602705-A 4 05-AUG-2003;  PEATURES Location Qualifiers  source 11515	RESULT 15 AR373320 LOCUS AR373320 DEFINITION Sequence 4 from patent US 6602705. ACCESSION AR373320 VERSION AR373320 KEYMORDS SOURCE Unknown. ORGANISM Unknown.		OY  1327 CCCAGCTACAAGGGCCCCCCCCCGCAACTTCCTGCAGAGCCGGCAACCCCCCCC
1363 ACCGRECCACCCCCCCCCCCCCCCCCARACTTCCACTTCAGGAACCACCCCCCCCCC	Db 1207 GGCCACCACGATGAAGGACTGCCGCCAGGCCAACTTCCTGGGCAAGATCTGG 1302	106 ANGECCCCGTGCTGGCCGAGGCGATGAGCCAGCCAACAGCGTGAACATCATGATGATGATGATGATGATGATGATGATGATGATGATGA	967 GAGACCCTGCTGGTGCAGAACGCCAACCCCCAGACCATCCTGAAGGCTCTCGGC  1006 CCCGGCGCACCCTGGAGGAGATGATGACCGCCTGCCAGGGCGGCCCACCCTGGAGGAGATGATGACCGCCTGCCAGGCGGCCCCACCCTGCAGGAGAATGATGACCGCCTGCCAGGCGGCCCCGGCCACCCTGCAGGAGAATGATGACCGCCTGCCAGGCGTCGGCCCACCCA	Db 847 CCCACCAGCATCCTGGACATCCGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACCTGGAC 906  Qy 886 CGCTTCTTCAAGACCCTTGCGCGCGCAGGAGGACCCACCAGGACCTGGAACTGGATGACC 945	Oy 706 GCCACCAGCACCTGCAGGAGCAGATCGCCTGGATGACCAGCAACCCCCCCC	Oy  586 CAGATGCTGAAGGACACCATCAACGAGGAGGCCGAGTGGGACCGCCTGCACCCCGTG 645  [	

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5: /cgn2_6/ptodata/1/pubpna/US07_NEW_PUB.seq:*

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Copyright (c) 1993 - 2004 Compugen Ltd.
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63, Appl
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80.9	81.0	81.0	81.0	81.0	81.0	81.5	82.6	85.2	86.1	86.2	86.3	87.1	87.1	88.9	88.9	88.9	98.9	99.6	99.6	99.6	99.6	99.6	99.7		•			99.8	
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## ALIGNMENTS

US-09-967-464-63

Sequence 63, App Publication No.

Application US/09967464

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APPLICANT: O'Hagan, Derek
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CURRENT APPLICATION NUMBER: 4002-967,464
PRIOR APPLICATION NUMBER: 60/236,105
PRIOR APPLICATION NUMBER: 60/236,105
PRIOR APPLICATION NUMBER: 60/236,105
                                                                                                                                                                                                                                                                                                                                       SEQ ID NO 63
                                                                                                             Matches
                                                                                                                                                               Query Match
                                                                                                                                       Best Local
                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: 60/315,905
PRIOR FILING DATE: 2001-08-30
NUMBER OF SEQ ID NOS: 68
                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE:
                                                                                                                                                                                                                                              LENGTH: 1479
TYPE: DNA
ORGANISM: Human immunodeficiency virus type 1
                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                              PatentIn version 3.1
                          ATGGGCGCCCGCGCCAGCATCCTGCGCGCGGCAAGCTGGGACGCCTGGGAGCGCATCCGC 60
                                                                                                             Conservative
                                                                                                       100.0%; Score 1479; DB 10; Length 1479; 100.0%; Pred. No. 6.9e-303; ive 0; Mismatches 0; Indels 0;
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PPLICANT: Bgnelbrecht, Susan

PPLICANT: Egnelbrecht, Susan

PPLICANT: van Rensburg, Estrelita Janse

ITLE OF INVENTION: POLYPEPTIDES ENCODING ANTIGENIC HIV TYPE C

ITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF

ILTE REPERENCE: PPO1631.102

URRENT APPLICATION NUMBER: US/09/899,575

TURRENT APPLICATION NUMBER: 09/475,704

RIOR APPLICATION NUMBER: 09/475,704

RIOR APPLICATION NUMBER: 09/475,704

RIOR PILING DATE: 1999-12-30

SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                      RR INFORMATION: Description of Artificial Sequence: synthetic Gag
ER INFORMATION: of HIV strain AP110965
99-575-3
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ACCGTGGCCACCCTGTACTGCGTGCACGAGAAGATCGAGGTCCGCGACACCAAGGAGGCC
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Sequence 18, Application US/10190435

Publication No. US20030143248A1

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APPLICANT: VAN RESSUNG, Setrelita J.
APPLICANT: VAN RESSUNG, BETTELITA SHOODING ANTIGENIC HIV TYPE C
TITLE OF INVENTION: POLYMUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C
TITLE OF INVENTION: POLYMPETIDES, POLYPETIDES AND USES THEREOF
FILE REFERENCE: PP18133,003 / 2302-18133
CURRENT APPLICATION NUMBER: US/10/190,435
CURRENT FILING DATE: 2002-12-30
NUMBER OF SEQ ID NOS: 319
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 18
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US-10-190-435-18
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US-10-190-435-18
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Best Local Similarity 99.9%;
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TYPE: DNA
ORGANISM: Artificial Sequence
FEATURB:
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RESULT 4
US-10-190-435-16
; Sequence 16, Application US/10190435
; Publication No. US20030143248A1
; GENERAL INFORMATION:
; APPLICANT: ZUR MEGEDE, Jan
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; OTHER INFORMATION: Description
US-10-190-435-16
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APPLICANT: LIAN, Ying
APPLICANT: ENGELBRECHT, SUBAN
APPLICANT: ENGELBRECHT, SUBAN
APPLICANT: VAN RENSBURG, BETTEILE J.
TITLE OF INVENTION: POLYMPICLEOTIDES, POLYPEPTIDES ANTIGENIC HIV TYPE OF TITLE OF INVENTION: POLYMPEPTIDES, POLYPEPTIDES AND USES THEREOF FILE REFERENCE: PP18133.003 / 2302-18133
CURRENT APPLICATION NUMBER: US/10/190,435
CURRENT FILING DATE: 2002-12-30
NUMBER OF SEQ ID NOS: 319
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 16
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Best Local Similarity
Matches 1478; Conservat
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TYPB: DNA
ORGANISM: Artificial Sequence
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                                       GACCTGAACACGATGTTGAACACCGTGGGCGCCACCAGGCCCCATGCAGATGCTGAAG
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ilarity 99.9%;
Conservative
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Pred. No. 1.5e-302;
O; Mismatches 1; I
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RESULT 5

US-10-190-435-19

i Sequence 19, Application US/10190435

publication No. US20030143248A1

GENERAL INFORMATION:
APPLICANT: ZUR MEGEDE, Jan
APPLICANT: LIAN, Ying
APPLICANT: ENGELBRECHT, Susan W.
APPLICANT: ENGELBRECHT, Susan
APPLICANT: VAN RESSBURG, Estrelita J.
TITLE OP INVENTION: POLYPETIDES ENCODING ANTIGENIC HIV TYPE C
TITLE OP INVENTION: POLYPETIDES, POLYPETIDES AND USES THEREOF
FILE REFERENCE: PP18133.003 / 2302-18133
CURRENT APPLICATION NUMBER: US/10/190,435
CURRENT FILING DATE: 2002-12-30
NUMBER OF SEQ ID NOS: 319
SOPTWARE: Patentin Ver. 2.0

ERO ID NO 19
LENGTH: AA.0
LENGTH: 4419
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
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OY  1 CTGCGCCCCGGCGCAAGAAGTGCTACATGATGAAGCACCTGGTTGTGGCCAGCCGCGAG 120	APPLICANT: BURNETT, SUBBIN W. APPLICANT: BARNETT, SUBBIN W. APPLICANT: BARNETT, SUBBIN W. APPLICANT: ELIAN, Ying APPLICANT: ENGELBRECHT, SUBBIN W. APPLICANT: ENGELBRECHT, SUBBIN W. APPLICANT: CAN REWSBURG, BETTELLE J. APPLICANT: TITLE OF INVENTION: POLYMUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C TITLE OF INVENTION: POLYMUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C TITLE OF INVENTION: POLYMUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C TITLE OF INVENTION: POLYMUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C TITLE OF INVENTION: POLYMUTIDES, POLYPEPTIDES AND USES THEREOP FILE REFERENCE: PP1813.003 / 2302-18133 CURRENT FILING DATE: 2002-12-30  NUMBER OF SEQ ID NOS: 319 SOFTWARE: Patentin Ver. 2.0 SEQ ID NO 35 \ LENGTH : 4483 TYPE: DNA ORGANISM: Artificial Sequence FRATURE: INFORMATION: Description of Artificial Sequence: OTHER INFORMATION: 99160mod.TV1.dV1V2-gagmod.BM965  US-10-190-435-35  Query Match Best Local Similarity 99.9%; Score 1477.4; DB 15; Length 4483; Best Local Similarity 99.9%; Pred. No. 1.4e-302; Matches 1478; Conservative 0; Mismatches 1; Indels 0; Gaps 0; Matches 1478; Conservative 0; Mismatches 0; Matches 1478; ATGGGCGCCCGCGCCAGCATCCTGCGCGGGGCAAGCTGGAAGCCTGGGAAGCCCATCCGC 3064  DB 3005 ATGGGCGCCGCGCCAGCATCCTGCGCGGGGCAAGCTGGAAGCCTGGGAAGCCCATCCGC 3064	Qy 1261 GACTGCACCGAGGCCAACTTCCTTGGCCAAGATCTTGGCCCAGGCCACAAGGGCCGC 1320
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Sequence 34, Application US/10190435

| Publication No. US20030143248A1
| Publication No. US20030143248A1
| GENERAL INFORMATION:
| APPLICANT: ZUR MEGEDE, Jan
| APPLICANT: LIAN, Ying
| APPLICANT: BARNETT, SUSAN
| APPLICANT: UNA RENSBURG, Betrelita J.
| APPLICANT: VAN RENSBURG, BETRELITA J.
| APPLICANT: VAN RENSBURG, BETRELITA J.
| APPLICANT: VAN RENSBURG, BOLYPEPTIDES ENCODING ANTIGENIC HIV TYPE C
| TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF
| FILE REFERENCE: PP18133.003 / 2302-18133
| CURRENT APPLICATION NUMBER: US/10/190,435
| CURRENT APPLICATION NUMBER: US/10/190,435
| CURRENT APPLICATION NUMBER: US/10/190,435
| CURRENT FILING DATE: 2002-12-30
| NUMBER OF SEQ ID NOS: 319
| SOFTWARE: Patentin Ver. 2.0
| SEQ ID NO 34
| LENGTH: 4606
| TYPE: DNA
| ORGANISM: Artificial Sequence
| PERTURE: UNCOMMETTINE | CONTINUED | C
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OTHER INFORMATION: gp160mod.TV1.dV1-gagmod.BW965
US-10-190-435-34
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Pred. No. 1.4e-302;
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RESULT 9

US-10-190-435-36

(Sequence 36, Application US/10190435

; Sequence 36, Application US/10190435

; Publication No. US20030143248A1

; GENERAL INFORMATION:

; APPLICANT: ZUR MEGEDE, Jan

; APPLICANT: BARNETT, Susan W.

; APPLICANT: BARNETT, Susan W.

; APPLICANT: ENGELERECHT, Susan

; APPLICANT: ENGELERECHT, Susan

; APPLICANT: ENGELERECHT, Susan

; APPLICANT: UNIVENTION: POLYPEPTIDES ENCODING ANTIGENIC HIV TYPE (
; TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF
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CURRENT APPLICATION NUMBER: US/10/190,435
CURRENT FILING DATE: 2002-12-30
NUMBER OF SEQ ID NOS: 319
SOPTWARE: Patentin Ver. 2.0
SEQ ID NO 36
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Best Local Similarity 99.9%;
Matches 1478; Conservative
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ORCANISM: Artificial Sequence
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PERTURE:
OTHER INFORMATION: Description of Artificial Sequence:
OTHER INFORMATION: 9p160mod.TV1.dV2-gagmod.BW965
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RESULT 10

US-10-190-435-38

Sequence 38, Application US/10190435

Publication No. US20030143248A1

GENERAL INFORMATION:

APPLICANT: DARNETT, Susan W.
APPLICANT: LIAN, Ying
APPLICANT: LIAN, Ying
APPLICANT: WAN ERUSBURG, Estrelita J.
TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV
TITLE OF INVENTION: POLYPETIDES, POLYP
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LENGTH: 4702
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US-10-190-435-38

OTHER INFORMATION: OTHER INFORMATION:

Description of Artificial gp160mod.TV1-gagmod.BW965

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Publication No. US20030143248A1

GENERAL INFORMATION:

APPLICANT: ZUR MEGEDE, Jan

APPLICANT: LIAN, Ying

APPLICANT: LIAN, Ying

APPLICANT: VAN RENSBURG, Estrelita J.

APPLICANT: VAN RENSBURG, Estrelita J.

TITLE OF INVENTION: POLYMUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C

TITLE OF INVENTION: POLYMPTIDES, POLYPEPTIDES, AND USES THEREOF

FILE REFERENCE: PP16133.003 / 2302-18133

CURRENT APPLICATION NUMBER: US/10/190,435

CURRENT FILING DATE: 2002-12-30

NUMBER OF ESG JD NOS: 319

SOFTWARE: Patentin Ver. 2.0

SEQ ID NO 17
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                            LENGTH: 4716
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
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                                                                                                    CTGCGCCCCGGGCAGGAAGTAGTTGCTACATGATGAAGCACCTGGTGTGGGCCAGCCGCGAG
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Sequence 13, Application US/10190305A

Publication No. US20030198621A1

GENERAL INFORMATION:
APPLICANT: ZUR MEGEDE, Jan
APPLICANT: ZUR MEGEDE, Jan
APPLICANT: LIAN, Ying
APPLICANT: LIAN, Ying
TITLE OF INVENTION: FOLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE B AND/OR
TITLE OF INVENTION: TYPE C POLYPEPTIDES, POLYPEPTIDES AND USES THEREOP
FILE REFERENCE: 2302-18702.002
CURRENT APPLICATION NUMBER: US/10/190,305A
CURRENT EPLICATION MUMBER: US/10/190,305A
CURRENT FILING DATE: 2002-07-05
NUMBER OF SEQ ID NOS: 93
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 13
LENGTH: 4716
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; OTHER INFORMATION: Description of Artificial Sequence:
; OTHER INFORMATION: GagProtInaRTmutTatRevNef_C
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Best Local Similarity 99.9
Matches 1478; Conservative
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                                             GCCGACAAGGGCAAGGTGAGCCAGAACTACCCCATCGTGCAGAACCTGCAGGGCCAGATG
                                                                                                        CTGGACAAGATCGAGGAGGAGGAGCAGAACAAGTGCCAGCAGAAGATCCAGCAGGCCGAGGCC
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                                          TTCGAGGAGACCACCCCCGGCCAGAAGCAGGAGCAAGGACCGCGAGACCCTGACCAGC 1440
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Sequence 20, Application US/10190435

; Debication No. US20030143248A1

; GENERAL INFORMATION:
APPLICANT: ZUR MEGEDE, Jan
; APPLICANT: ZUR MEGEDE, Jan
; APPLICANT: ENGRIFT, Susan W.
APPLICANT: ENGRIFT, Susan W.
APPLICANT: LIAN, Ying
APPLICANT: VAN RENSBURG, Estrelita J.
APPLICANT: VAN RENSBURG, ESTRELITA J.
APPLICANT: VAN RENSBURG, ESTRELITA J.
APPLICANT: VAN RENSBURG, SETTELITA S.
APPLICANT: VAN RENSBURG, SETTELITA S.
TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF
; TITLE OF INVENTION: NOWHEER: US/10/190,435
; CURRENT APPLICATION NUMBER: US/10/190,435
; CURRENT FILING DATE: 2002-12-30
; SOPTWARE: Patentin Ver. 2.0
; SEQ ID NO 20
; LENGTH: 2742
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Best Local Similarity 99.9%;
Matches 1477; Conservative
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                                                GACCTGAACACGATGTTGAACACCGTGGGCGGCCACCAGGCCGCCATGCAGATGCTGAAG
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RESULT 14

US-10-190-305A-15

; Sequence 15, Application US/10190305A
; Publication No. US20030198621A1
; GENERAL INFORMATION:

; APPLICANT: ZUR MEGEDE, Jan
; APPLICANT: BARNETT, Susan
; APPLICANT: LIAN, Ying
; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV
TITLE OF INVENTION: TYPE C POLYPEPTIDES, POLYPEPTIDES AND
; FILE REFERENCE: 2302-18702 / 18702-002
; CURRENT APPLICATION NUMBER: US/10/190,305A
; CURRENT FILING DATE: 2002-07-05
; NUMBER OF SEQ ID NOS: 93
; SOPTWARE: Patentin Ver. 2.0
; SEQ ID NO 15
; LENGTH: 2742
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61 CTGCGCCCCGGCGCAAGAAGTGCTACATGATGAAGCACCTGGTGTGGGCCAGCCGCGAG 120		Query Match 99.8%; Score 1475.8; DB 15; Length 3930; Best Local Similarity 99.9%; Pred. No. 3.1e-302; Matches 1477; Conservative 0; Mismatches 2; Indels 0; Gaps 0;	ORGANISM: Artificial Sequence FRATURE: COTHER INFORMATION: Description of Artificial Sequence: GagComplPolmut_C 10-190-435-9	SOFTWARE PATENTIN Ver. 2.0  SEQ ID NO 9 LENGTH: 330	TITES OF INVENTION: POLIFERINGS FULL OF AND ORDER INCOME.  FILE REFERENCE: PP18133.003 / 2302-18133  CURRENT APPLICATION NUMBER: US/10/190,435  CURRENT FILING DATE: 2002-12-30  CURRENT FILING DATE: 2002-12-30	APPLICANT: LLAW, IIIIG APPLICANT: ENGELBERGET, Susan APPLICANT: VAN RENSBURG, Estrelita J. APPLICANT: VAN RENSBURG, ESTRELITA J. TITLE OF INVENTION: POLYNICLEOTIDES ENCODING ANTIGENIC HIV TYPE C	PUDIICATION NO. USZUJJI43248AI GENERAL INPORMATION: APPLICANT: ZUR MEGEDE, Jan APPLICANT: BARNETT, Susan W.	RESULT 15 US-10-190-435-9 ; Sequence 9, Application US/10190435	1441 CTGAAGAGCCTGTTCGGCAACGACCCCCCTGAGCCAGTAA 1479	Trogaggagaccaccocoggccagaagcaggaggagagcaagg	CCCGGCAACTTCCTGCAGAGCCGCCCCGAGCCGACGCCCCCCGCGAGAGCTTCCGC	GACTGCACCGAGCCCAGCCCAACTTCCTGGCCAAGATCTGGCCCAGCCACCAAGGGCCGCACAAGGGCCGCACCAGCCAAGAGCCCAGCCAAGAGCCCAGCCAAGAGCCCAGCCAAGAGCCCAGCCAAGAGCCCAAGCCCAAGAGGCCGC				CTGSAGGNGATGATGACCGCCTGCCAGGGCSTGGGCGCCCAGGCCACAAGGCCGCGTGCTGGGAGGAGGAGGATGATGACGGCCGCGGGGGGGG	GIGCHAMNIGH CHNOCK LIGHAMAN CHI CE DAGGOCT CIGGOCCOGGCCCAGC GTGCAGAA CCCCCAACCCCCAACTGCAAGACCATCCTGCGCGCCTCTCGGCCCCCGGCCCCAGC	
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1441 CTGAAGAGCCTGTTCGGCAACGACCCCCTGAGCCAGTAA 1479
1381 TTCGAGGAĞACCACCCCCGGCCAĞAAGCAGGAGACCAAGGACCGCGAGACCCTGACCAGC 1440 
1321 CCCGGCAACTTCCTGCAGAGCCGCCCCGAGCCCACCGCCCCCCCC
1261 GACTGCACCGAGGGCCAGGCCAACTTCCTGGGCAAGATCTGGCCCAGCCACAAGGGCCGC 1320
1201 TGCCGCGCCCCCCGCAAGAAGGGCTGCTGGAAGTGCGGCAAGGAGGGCCACCAGATGAAG 1260

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AAI449953
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ADC13239
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Aa144548
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HIV synth
HIV-1 p55
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DNA of HI
Synthetic
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DNA of HI
Synthetic
DNA of HI
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Synthetic
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1197.8	1197.8	1205.4	1206	1221.2	1260.8	1260.8	1262.4	1276.8	1276.8	1276.8	1288	1288.8	1315.2	1315.2	1315.2	1347.4	1424.4	1461.4	1463	1463	1472.4
81.0	81.0	81.5	81.5	82.6	85.2	85.2	85.4	86.3	86.3	86.3	87.1	87.1	98.9	88.9	98.9	91.1	96.3	98.8	98.9	98.9	99.6
4472	1515	4288	9788	9166	1509	1509	1509	1509	1509	1509	1494	1491	3538	3537	3531	4423	4546	1479	1479	1479	2742
w	w	4.	σ	σ	σ	ω	σ	σ	Φ	w	σ	σ	9	9	9	9	9	σ	σ	w	9
AAA70472	AAA70412	AAH20868	ABK91622	ABK91616	AAL44553	AAA51626	ABL39958	ABL39954	AAL44549	AAA51610	ABL39972	ABL40020	ADC13235	ADC13236	ADC13234	ADC13256	ADC13255	AAL44552	ABL39957	AAA51625	ADC13278
Aaa70472 HIV bicis	Aaa70412 Synthetic	Aah20868 HIV-1 sub	Abk91622 Modified	Abk91616 Modified	Aa144553 HIV-1 p55	Aaa51626 HIV codon	Abl39958 Synthetic	Ab139954 Synthetic	Aal44549 HIV-1 p55	Aaa51610 HIV synth	Abl39972 Synthetic	Abl40020 Synthetic	_	e,	Adc13234 DNA of HI	DNA of	Adc13255 DNA of HI		Abl39957 Synthetic		Adc13278 DNA of HI

## ALIGNMENTS

HIV synthetic Gag polynucleotide.

31-0CT-2000 AAA51609;

(first entry)

AAA51609 standard; DNA; 1479

BP.

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WPI; 2000-452401/39.
P-PSDB; AAY96943.
                                                                               Barnett S, Zur Megede
                                                                                                               31-DEC-1998;
01-SEP-1999;
                                                                                                                                       30-DEC-1999;
                                                                                                                                                        06-JUL-2000.
                                                                                                                                                                       WO200039304-A2.
                                                                                                                                                                                                                                                       Synthetic.
                                                                                                                                                                                                                                                              Human immunodeficiency virus; type C strain AF110965.
                                                                                               (CHIR ) CHIRON CORP.
                                                                                                                                                                                                                                                                             ; expression cassette; antigenic; type C; HIV; Env; synthetic; immunization; packaging cell line; antigen presentation; ss.
                                                                                                               98US-0114495P.
99US-0152195P.
                                                                                                                                        99WO-US031273.
                                                                                                                                                                                       /product= "Synthetic_Gag"
/note= "Codon usage pattern was modified and inhibitory
elements (INS) and RRE sites were inactivated resulting
in improved expression"
                                                                                                                                                                                                                               Location/Qualifiers
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4419 4615 4702 4716 4716 2742 2742 3930 3930 5145 5145 5145 5145 5145 5184

Aca03522 Adc13238 Aca03524 Adc13241 Adc13230 Adc13231 Adc13231 Adc13232 Aca03592 Adc13280

Claim 2; Page 92-93; 113pp; English

human against HIV.

Polynucleotide encoding antigenic type C HIV Gag polypeptide or a HIV Env

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Best Local Similarity
Matches 1479; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Expression cassettes comprising a polynucleotide encoding antigenic type C human immunodeficiency virus (HIV) Gag or Env polypeptides are useful in DNA immunization, generation of packaging cell lines and production of Gag- and/or Env-containing proteins. Synthetic Env and Gag expression cassettes exhibit increased potency for induction of cytotoxic T-lymphocyte (CTL) responses by DNA immunization. Gag of HIV-1 self-assemble into non-infectious virus-like particles which are used as matrix for the proper presentation of an antigen entrapped or associated to the immune system of the host
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 1479 BP; 325 A; 529 C;
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                AAGCGGTGGATCATCCTGGGCCTGAACAAGATCGTGCGGATGTACAGCCCCGTGAGCATC
                                                                    CTGCAGGAGCAGATCGCCTGGATGACCAGCAACCCCCCATCCCCGTGGGCGACATCTAC
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                                                       CTGCAGGAGCAGATCGCCTGGATGACCAGCAACCCCCCCATCCCCGTGGGCGACATCTAC
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  AAGCGGTGGATCATCCTGGGCCTGAACAAGATCGTGCGGATGTACAGCCCCGTGAGCATC
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ilarity 100.0%;
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Pred. No. 2.3e-185;
; Mismatches 0;
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           CTGAAGAGCCTGTTCGGCAACGACCCCCTGAGCCAGTAA 1479
                                        GACTGCACCGÁGCGCCAGGCCAACTTCCTGGGCAAGATCTGGCCCAGCCACAAGGGCCGC
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                                                                                   CCCGGCAACTTCCTGCAGAGCCGCCCCGAGCCCACCGCCCCCCGCGAGAGCTTCCGC
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AAL44548 standard; DNA; 1479 ₽₽

AAL44548;

29-AUG-2003 08-NOV-2002 (revised) (first en entry)

p55gag polypeptide coding sequence

RACSULT 2
RAL445
IID AAL4
XX AAL4
XX AAL4
XX AAL4
XX 108-N
XX 108-N
XX HIVXX HIVXX BOLLY
XX BOLLY HIV; ds; vaccine; gene; immune response; microparticle; adsorbent surface; poly(alpha-hydroxy acid); polyhydroxy butyric polycaprolactone; polycrhoester; polycyanoacrylate; detergent; submicron emulsion; viral infection; bacterial infection; parasitic infection; HIV-1 p55gag polypeptide.

immunodeficiency virus 1.

#O200226209-A2

28-SEP-2001; 2001WO-US030540

28-SEP-2000; 2000US-0236105P 30-AUG-2001; 2001US-0315905P

(CHIR ) CHIRON CORP

841

CTGGACATCAAGCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAG

Claim

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Query Match 100.0%; Score 1479; DB 6; Best Local Similarity 100.0%; Pred. No. 2.3e-185; Matches 1479; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The invention relates to a method of raising an immune response in a host animal. The method of the invention comprises administering a microparticle that has an adsorbent surface to which a first biologically active macromolecule (e.g. a nucleic acid) has been adsorbed. The microparticle comprises a polymer microparticle of poly(alpha-bydroxy acid), a polyhydroxy butyric acid, a polycaprolactone, a polyorthoester, a polycyanoacrylate, a detergent, and submicron emulsion. The method/microparticle of the invention is useful for immunising a host animal against viral, bacterial or parasitic infections. The present DNA sequence encodes a HIV-1 p55gag polypeptide. (Updated on 29-AUG-2003 to standardise OS field)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A microparticle to which a biologically active macromolecule is adsorbed, for use as a vaccine composition to treat viral, bacterial or parasitic infections, comprises a polymer microparticle, a detergent and a submicron emulsion.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       O'hagan D, Otten G,
Ulmer J, Dubensky TW;
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GACACCATCAACGAGGAGGCCGCCGAGTGGGACCCCGGTGCACCCCGTGCACGCCCCCC
                                                    GACCTGAACACGATGTTGAACACCGTGGGCGGCCACCAGGCCGCCATGCAGATGCTGAAG
                                                                      GACCTGAACACGATGTTGAACACCGTGGGCGGCCACCAGGCCGCCATGCAGATGCTGAAG
                                                                                                                     GCCTTCAGCCCCGAGGTGATCCCCCATGTTCACCGCCCTGAGCGAGGGCGCCACCCCCCAG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New polynucleotides encoding antigenic HIV Type C polypeptides, useful applications including DNA immunization or generation of packaging cell lines, particularly in gene therapy.
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Matches 1478; Conserv
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(UYST-)
                                                                                                                                                                                                                                                                                                                                                                                                                    New expression cassette comprising a polynucleotide sequence encoding polypeptide including an HIV Gag, Env, Int, Nef, p15RnaseH, Pol, Tat, Prot, or Rev polypeptide, useful for immunization, or generating packaging cell lines.
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31-AUG-2001; 2001US-0316860P.
16-JAN-2002; 2002US-0349871P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            expression cassette; HIV Gag; Env; Int; Nef; plSRnaseH; Pol; Tat; Prot; Rev; HIV type C; gene therapy; vaccine; immunisation; HIV; ds.
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67 CTGCGCCCCGGCGAGAAGTGCTACATGATGAAGCACCTGGTGTGGGCCAGCCGCGAG 126	61 CTGCCCCCCGGCGCAAGAAGTGCTACATGATGAAGCACCTGGTGTGGGCCCAGCCGCGAG 120	1 ATGGGCGCCGCGCGCAGCATCCTGCGCGGCGAAGCTGGAAGCTCTGGGAGCGCATCCGC 60	Query Match 99.9%; Score 1477.4; DB 9; Length 3462; Best Local Similarity 99.9%; Pred. No. 3.2e-185; Matches 1478; Conservative 0; Mismatches 1; Indels 0; Gaps 0;	Sequence 3462 BP; 790 A; 1198 C; 1068 G; 406 T; 0 U; 0 Other;	Type C related sequence of the invention.	for immunisation, generating packaging cell lines and producing HIV polymentides. This polymucleotide sequence represents the DNA of an HIV	administrated introduction; intractionally, intractably, intractably, intractably, intractably, or intravenously, intractably, intractably, or intravenously. The expression cassette is useful	used in the development of used to treat in type to y year curry or used in the development of the same control in the same cally interpretable interpretable.	polynucleotide sequence encoding a polypeptide including an HIV Gag, Env, polynucleotide sequence encoding a polypeptide including an HIV Gag, Env, Int, Nef, p15RnaseH, Pol, Tat, Prot, or Rev polypeptide. The novel	Disclosure; Pig 13; 301pp; English.	packaging cell lines.	New expression cassette comprising a polynucleotide sequence encoding a polypeptide including an HIV Gag, Env, Int, Nef, pl5RnaseH, Pol, Tat, Prot, or Rev polypeptide, useful for immunization, or generating	WPT; 2003-221593/21.	Zur Megede J, Barnett SW, Lian Y, Engelbrecht S, Van Rensburg EJ;	(CHIR ) CHIRON CORP. (UYST-) UNIV STELLENBOSCH.	16-JAN-2002; 2002US-0349871P.	05-JUL-2001; 2001US-0303192P.	05-JUL-2002; 2002WO-US021420.	16-JAN-2003.	WO2003004620-A2.	Human immunodeficiency virus.	expression cassette; HIV Gag; Env; Int; Nef; p15RnaseH; Pol; Tat; Prot; Rev; HIV type C; gene therapy; vaccine; immunisation; HIV; ds.	DNA of HIV construct GagProtInaRtmut_C SEQ ID NO 16.	18-DEC-2003 (first entry)	ADC13237;	RESULT 5 ADC13237 ID ADC13237 standard; DNA; 3462 BP.	1441 CIGHALANGEE GILLOGEANGUNECECETGAGECAGAAA 1477 1447 CIGAAGAGCCTGTTCGGCAACGACCCCCTGAGCCAGAAA 1485	387	TTCGAGGAGACCACCCCCGGCCAGAAGCAAGCAAGCAAGGACCGCGAGACCCTGACCAGC
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# ) ART CICLAR MANAGEMENT AND TAKEN TO CHAIR TO CONTRACT TO CONTRA	114.1 GGCCCCCGGGGCATCGTCAAACTGCTTCAAACTGCGGCAAGAGAGACCACATCGCCGCGAAC 1200	87 CTGGCCGAGGCGATGAGCCAGGCCAACACCAGCGTGATGATGCAGAAGAGAACTTCAAG 1	27	21 CTGGAGGAGATGATGACCGCCTGCCAGGGCGTGGGCGGCCCCAGCCACAAGGC		961 GTGCAGAACGCCAACCCCGACTGCAAGACCATCCTGCGCGCTCTCGGGCCCCGGCGCCAGC 1020	07 ACCCTGCGCGCCGAGAGAAGCACCCAGGAGGTGAAGAACTGGATGACCGACACCCTGCTG 96	01 BOOTTOTOTOTOTOTOTOTOTOTOTOTOTOTOTOTOTOT	B41 CTGGACATCAAGCAGGCCCCCAAGGAGCCCCTTCCGGCGACTAGCTGGACCGCCTTCTTCAAG 900	787 AAGCGGTGGATCATCCTGGGCCTGAACAAGATCGTGCGGATGTACAGCCCCGTGAGCATC 846	781 AAGCGGTGGATCATCCTGGGCCTGAACAAGATCGTGCGGATGTACAGCCCCGTGAGCATC 840	721 CTGCAGGAGCAGATCGCCTGGATGACCAGCAACCCCCCATCCCCGTGGGCGACATCTAC 780	667 ATCGCCCCCGGCCAGATGCGCGAGGCAGCAGCAACATCGCCGGCACCAGCAGCACC 726	661 ATCGCCCCCGGCCAGATGCCCCGAGCCCGCCGCACATCGCCGGCACCACCAGCACC 720		01 GACACCATCAACGAGGAGGCCGCCGAGTGGGGACCGGCGTGCACCCCGTGCACGCCGGCCCC 6		GACCTGAACACGATGTTGAACACCGTGGGGCGACCACGCCGCCATGCAGATGCTGAAG 6	#81 GCCTTCAGCCCCGACGTGATCCCCCATGTTCACCCGCCTGAGCGAGGGCCCACCCCCCAG 546	TS DROADADARCENTATION TO CONTRACT TO CONTR			361 GCCGACAAGGGCAAGGTGAGCCAGAACTACCCCCATCGTGCAGAACCTGCAGGGGCCAGATG 420	307 CTGGACAAGATCGAGGAGCAGACAGAACAAGTGCCAGCAGAAGATCCAGCCAG	301 CTGGACAAGATCGAGGAGGAGGAGAACAAGTGCCAGGAGAAGATCCAGCAGGCCGAGGCC 360	241 ACCGTGGCCACCCTGTACTGCGTGCACGAGAAGATCGAGGTCCGCGACACCAAGGAGGCC 300	181 ATCCGCCAGCTGCACCCCCGCCCTGCAGACCGGCAGGAGGAGCTGAAGAGCCTGTTCAAC 240	127 CTGGAGAAGTTCGCCCTGAACCCCGGCCTGCTGGAGAACCAGCGAGGGCTGCAAGCAGATC 186	121 CTGGAGAAGTTCGCCCTGAACCCCGGCCTGCTGGAGACCAGCGAGGGCTGCAAGCAGATC 180

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The invention describes a synthetic polynucleotide encoding 2 or more immunogenic HIV polypeptides, where at least 2 of the polypeptides are derived from different HIV subtypes. The polynucleotide is useful for immunisation, generation of packaging cell lines, or production of HIV polypeptides. The polynucleotide and its encoded proteins are useful as immunogenic compositions or vaccines for generating humoral or cellular immune responses against HIV in a subject, or for inducing neutralising antibodies against HIV. The gene delivery vector comprising the polynucleotide is also useful for DNA immunisation of, or for generating an immune response (e.g. a humoral or cellular immune response) in, a subject such as a mammal, particularly a human. This sequence encodes a
                                                                                                                                                                                                                                                                                                                           05-JUL-2001; 2001US-0303192P.
31-AUG-2001; 2001US-0316860P.
16-JAN-2002; 2002US-0349728P.
16-JAN-2002; 2002US-0349793P.
16-JAN-2002; 2002US-0349871P.
                                                                                                                                                                                             New synthetic polynucleotides encoding antigenic HIV type B and/or type polypeptides, useful as immunogenic compositions or vaccines for generating humoral or cellular immune responses against HIV in a subject
                                                                                                                                                                                                                                                                                                                                                                                                        05-JUL-2002; 2002WO-US021421.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Immunogenic HIV polypeptide; human immunodeficiency virus; HIV; vaccine; gene therapy; packaging cell line; humoral immune response; cellular immune response; gene delivery vector; DNA immunisation; ds.
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                    New expression cassette comprising a polynucleotide sequence encopolypeptide including an HIV Gag, Env. Int, Nef, pi5knaseH, Pol, Prot, or Rev polypeptide, useful for immunization, or generating packaging cell lines.
                                                                                                          WPI;
                                                                                                                                                                                                                              05-JUL-2001; 2001US-0303192P
31-AUG-2001; 2001US-0316860P
16-JAN-2002; 2002US-0349871P
                                                                                                                                           Zur Megede J,
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                                                                                                                                                                                                                                                                                                                                                                                                           Human immunodeficiency virus
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UNIV STELLENBOSCH
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The invention relates to a novel expression cassette comprising a polynucleotide sequence encoding a polypeptide including an HIV Gag, Env, Int, Nef, piSknaseH, Pol, Tat, Prot, or Rev polypeptide. The novel expression cassette can be used to treat HIV type C by gene therapy or used in the development of a vaccine. The gene delivery vector is administered intramuscularly, intramucosally, intranasally, subcutaneously, intradermally, transdermally, intravaginally, intrarectally, orally or intravenously. The expression cassette is useful for immunisation, generating packaging cell lines and producing HIV polypeptides. This polynucleotide sequence represents the DNA of an HIV Type C related sequence of the invention.
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The invention relates to a novel expression cassette comprising a polynucleotide sequence encoding a polypeptide including an HIV Gag, Int. Nef, piSRnaseH, Pol. Tat, Prot, or Rev polypeptide. The novel expression cassette can be used to treat HIV type C by gene therapy oued in the development of a vaccine. The gene delivery vector is administered intramuscularly, intramucosally, intransally, subcutaneously, intradermally, transdermally, intravaginally, subcutaneously, intradermally, transdermally, intraveginally, intraveginally, intraveginally, or intravenously. The expression cassette is us for immunisation, generating packaging cell lines and producing HIV polypeptides. This polymucleotide sequence represents the DNA of an H Type C related sequence of the invention.
                                                                                                                                                                                                                                                                                                      New expression cassette comprising a polynucleotide sequence encoding polypeptide including an HIV Gag, Env. Int. Nef. plsRnaseH. Pol. Tat. Prot. or Rev polypeptide, useful for immunization, or generating packaging cell lines.
                                                                                                                                                                                                                                                                    Disclosure; Fig 33; 301pp;
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                                 expression cassette; HIV Gag; Env; Int; Nef; p15KnaseH; Pol; Tat; Prot; Rev; HIV type C; gene therapy; vaccine; immunisation; HIV; ds.
                                                                                                           DNA of HIV construct gp160mod-TV1-gagmod-BW965 SEQ ID NO
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CTGGACAAGATCGAGGAGGAGCAGAACAAGTGCCAGCAGAAGATCCAGCAGGCCGAGGCC ACCGTGGCCACCCTGTACTGCGTGCACGAGAAGATCGAGGTCCGCGACACCAAGGAGGCC ACCGTGGCCACCCTGTACTGCGTGCACGAGAAGATCGAGGTCCGCGACACCAAGGAGGCC ATCCGCCAGCTGCACCCCCCCCCCAGACCGGCAGCGAGGAGCTGAAGAGCCTGTTCAAC ATCCGCCAGCTGCACCCCGCCCTGCAGAACCGGCAGCGAGGAGCTGAAGAGCCTGTTCAAC CTGGAGAAGTTCGCCCTGAACCCCGGCCTGCTGGAGACCAGCGAGGGCTGCAAGCAGATC CTGGAGAAGTTCGCCCTGAACCCCCGGCCTGCTGGAGAGCCAGCGAGGGGCTGCAAGCAGATC CTGCGCCCCGGCGCAAGAAGTGCTACATGATGAAGCACCTGGTGTGGGCCAGCCGCGAG CTGCGCCCCGGCGGCAAGAAGTGCTACATGATGAAGCACCTGGTGTGGGCCAGCCGCGAG

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ATGGGCGCCCGCCAGCATCCTGCGCGCGCCAAGCTGGACGCCTGGGAGCGCATCCGC

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Matches 1478;

Conservative

<u>.</u>.

Score 1477.4; DB 9; Pred. No. 3.1e-185; Mismatches

Indels

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Gaps

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Length 4702;

Query Match 99.9%; Best Local Similarity 99.9%;

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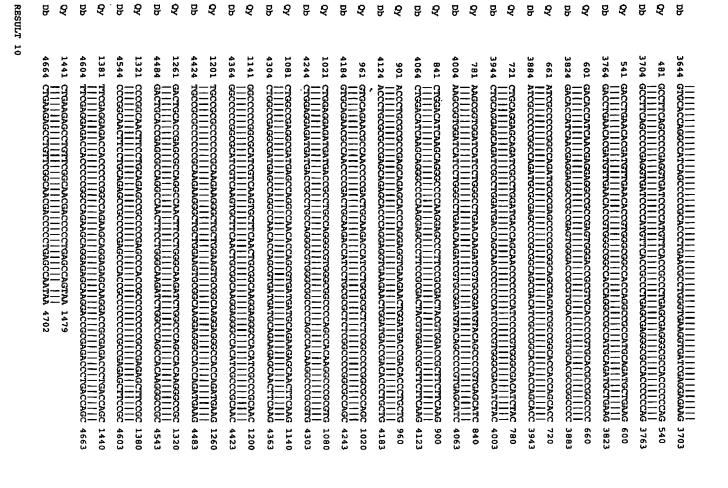
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The invention relates to a novel expression cassette comprising a polynucleotide sequence encoding a polypeptide including an HIV Gag, Env, Int, Nef, pl5RnaseH, Pol, Tat, Prot, or Rev polypeptide. The novel expression cassette can be used to treat HIV type C by gene therapy or used in the development of a vaccine. The gene delivery vector is administered intramuscularly, intramocosally, intranasally, subcutaneously, intradermally, transdermally, intraveginally, intraveginally, intravestic HIV, orally or intravenously. The expression cassette is useful for immunisation, generating packaging cell lines and producing HIV polypeptides. This polymucleotide sequence represents the DNA of an HIV Type C related sequence of the invention.
                                                                                                                                                                                                                                                       New expression cassette comprising a polynucleotide sequence enc
polypeptide including an HIV Gag, Env, Int, Nef, pl5RnaseH, Pol,
Prot, or Rev polypeptide, useful for immunization, or generating
packaging cell lines.
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31-AUG-2001; 2001US-0316860P
16-JAN-2002; 2002US-0349871P
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Sequence 4702 BP; 1057 A; 1617 C; 1371 G; 657 T;
                                                                                                                                                                                                                           Disclosure; Fig 35; 301pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The invention describes a synthetic polynucleotide encoding 2 or more immunogenic HIV polypeptides, where at least 2 of the polypeptides are derived from different HIV subtypes. The polynucleotide is useful for immunisation, generation of packaging cell lines, or production of HIV polypeptides. The polynucleotide and its encoded proteins are useful as immunogenic compositions or vaccines for generating humoral or cellular immune responses against HIV in a subject, or for inducing neutralising antibodies against HIV. The gene delivery vector comprising the polynucleotide is also useful for DNA immunisation of, or for generating an immune response (e.g. a humoral or cellular immune response) in, a subject such as a mammal, particularly a human. This sequence encodes a human immunodeficiency virus immunogenic peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New synthetic polynucleotides encoding antigenic HIV type B and/or type C polypeptides, useful as immunogenic compositions or vaccines for generating humoral or cellular immune responses against HIV in a subject, especially humans.
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31-AUG-2001; 2001US-0316860P.
16-JAN-2002; 2002US-03497728P.
16-JAN-2002; 2002US-0349973P.
16-JAN-2002; 2002US-0349871P.
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                                        The invention relates to a novel expression cassette comprising a polynucleotide sequence encoding a polypeptide including an HIV Gag, Env, Int, Nef, p15RnaseH, Pol, Tat, Prot, or Rev polypeptide. The novel expression cassette can be used to treat HIV type C by gene therapy or used in the development of a vaccine. The gene delivery vector is administered intramuscularly, intramucosally, intranasally, subcutaneously, intradermally, transdermally, intravaginally, intravectally, orally or intravenously. The expression cassette is useful for immunisation, generating packaging cell lines and producing HIV polypeptides. This polynucleotide sequence represents the DNA of an HIV Type C related sequence of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                            New expression cassette comprising a polynucleotide sequence encopolypeptide including an HIV Gag, Env. Int. Nef. p15RnaseH, Pol. Prot. or Rev polypeptide, useful for immunization, or generating packaging cell lines.
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31-AUG-2001; 2001US-0316860P
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(CHIR ) CHIRON CORP

ŗ Barnett æ, Lian

2003-221602/21.

New synthetic polynucleotides encoding antigenic HIV type B and/or type polypeptides, useful as immunogenic compositions or vaccines for generating humoral or cellular immune responses against HIV in a subject especially humans. subject,

Fig 12; 262pp; English.

The invention describes a synthetic polynucleotide encoding 2 or more immunogenic HIV polypeptides, where at least 2 of the polypeptides are immunogenic HIV subtypes. The polynucleotide is useful for immunisation, generation of packaging cell lines, or production of HIV polypeptides. The polynucleotide and its encoded proteins are useful a immunogenic compositions or vaccines for generating humoral or cellula Of HIV

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Matches 1477;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   immune responses against HIV in a subject, or for inducing neutralising antibodies against HIV. The gene delivery vector comprising the polynucleotide is also useful for DNA immunisation of, or for generating an immune response (e.g. a humoral or cellular immune response) in, a subject such as a mammal, particularly a human. This sequence encodes a human immunodeficiency virus immunogenic peptide
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        CTGGACATCAAGCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAG
                                     AAGCGGTOGATCATCCTGGGCCTGAACAAGATCGTGCGGATGTACAGCCCCGTGAGCATC
                                                                          CTGCAGGAGCAGATCGCCTGGATGACCAGCAACCCCCCCATCCCCGTGGGCGACATCTAC
                                                                                                                           GACACCATCAACGAGGAGGCCGCCGAGTGGGACCGCGGTGCACCCCCGTGCACGCCCCC
                                                                                                                                                                                                        GACCTGAACACGATGTTGAACACCGTGGGCGGCCACCAGGCCGCCATGCAGATGCTGAAG
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                                                                                                                 ATCGCCCCCGGCCAGATGCGCGAGCCCCCGCGGCAGCATCGCCGGCACCACCAGCACC
                                                                                                                                                       GACACCATCAACGAGGAGGCCGCCGAGTGGGACCGCGTGCACCCCGTGCACGCCGGCCCC
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Pred. No. 5.4e-185;
0; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    285 T; 0 U; 0 Other;
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RESULT 13
ADC13241
ID ADC13241
ADC13241
AC ADC13
XX ADC13
XX DNA C
XX EXPIR
XX EXPIR
XX HUMAI
XX HUMAI
XX HUMAI
XX HUMAI
XX HUMAI
XX HUMAI
XX OS-JI
PR 05-JI
PR 16-JI
XX (CHI)
PR 16-JI
XX (CHI)
PR 16-JI
XX (CHI)
PR (CHI)
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31-AUG-2001; 2001US-0316860P.
16-JAN-2002; 2002US-0349871P.
                                                          (CHIR )
                                                                                                                                          05-JUL-2002;
                                                                                                                                                                                                                Human
                                                                                                                                                                                                                                   expression cassette; HIV Gag;
Rev; HIV type C; gene therapy;
                                                                                                                                                                                                                                                                          DNA of HIV
                                                                                                                                                                                                                                                                                                                                                ADC13241 standard;
                                  Zur Megede J,
                                                                                                                                                                 16-JAN-2003
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Matches 1477;
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New expression cassette comprising a polynucleotide sequence encoding polypeptide including an HIV Gag, Env, Int, Nef, pl5RnaseH, Pol, Tat, Prot, or Rev polypeptide, useful for immunization, or generating packaging cell lines.
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                            ATCGCCCCGGCCAGATGCGCGAGAGCCCCCGCGGCAGCATCGCCGGCACCACCAGCACC
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Pred. No. 5.4e-185;
0; Mismatches 2;
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RESULT 14
ADC13230
ID ADC1333
XX ADC13
XX ADC13
XX ADC13
XX ADC13
XX DNA o
XX Expre
XW Expre
XW Rev;
XX Rev;
XX WO200
XX Human
XX WO200
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18-DEC-2003 (first entry)

DNA of HIV construct GagComplPolmut\_C SEQ ID NO

expression cassette; HIV Gag; Env; Int; Nef; pl5RnaseH; Pol; Tat; Prot; Rev; HIV type C; gene therapy; vaccine; immunisation; HIV; ds.

immunodeficiency virus

WO2003004620-A2

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Best Local Similarity
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31-AUG-2001;
16-JAN-2002;
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UNIV STELLENBOSCH.
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31-AUG-2001;
16-JAN-2002;
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UNIV STELLENBOSCH.
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score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

## Result No. 1197. 1197. 1195. 1195. 1195. 11134. 1131. 1131. 1131. 1131. 1131. 1131. 1131. 1131. 1131. 1131. 1463 1328.2 1288.8 1288 1288 1276.8 1205.4 1197.8 1197 1197 1197 1197 1197 1197 Query Match 881.0 88 Length 6438 9194 9194 9169 9169 9170 9189 9792 1847 1847 1853 1865 1494 1509 1509 9166 9788 9788 4288 4288 1515 9786 44472 44472 44472 44608 4608 4766 4766 4766 DB. 12 AX455887 AX468543 AX468543 AX468549 AX455993 AX455993 AX455993 AX455993 AX425993 AX425993 AX427936 AX427936 AX1268548 AX19648 AX455887 Sequence AX468543 Sequence AX468547 Sequence AX468547 Sequence AX455983 Sequence AX455983 Sequence AX455988 Sequence AX468548 Sequence AX468548 Sequence AX468548 Sequence AX468548 Sequence AX468548 Sequence AX427936 Sequence AX427936 Sequence AX149648 Sequence AX149648 Sequence AX12936 Sequence AX1373320 Sequence AX173320 Sequence BD263697 Improved AR373381 Sequence BD263698 Improved AR373381 Sequence BD263696 Improved AR373378 Sequence BD263696 Improved AR373378 Sequence AX427931 Sequence AX427932 Sequence AF202464 Synthetic AF202465 Synthetic BD263638 Improved AR373321 Sequence BD263701 Improved BD263701 Improved BD263701 Improved AX427928 Sequence AX427921 Sequence Description

## ALIGNMENTS

JOURNAL	BITIT	AUTHORS	REFERENCE		ORGANISM	SOURCE	KEYWORDS	VERSION	ACCESSION	DEFINITION	rocus	AX455887	RESULT 1
polypeptides and uses thereof Patent: WO 0204493-A 3 17-UAN-2002;	Polynucleotides encoding antigenic hiv type c polypeptides,	zur Megede, J., Barnett, S.W., Engelbrecht, S. and van Rensburg, E.	P	artificial sequences.	synthetic construct	synthetic construct	•	AX455887.1 GI:21714880	AX455887	Sequence 3 from Patent WO0204493.	AX455887 1479 bp DNA linear PAT 06:		
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Pred. No.

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FEATURES
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Viruses; Retroid viruses; Retroviridae; Lentivirus;
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1 (bases 1 to 1485)

1 (bases 1 to 1485)

1 (color in the color usage optimization of HIV type 1 subtype C gag, pol, one genes: in vitro expression and immune responses in the color i
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112 RPIII, LaSalle Street, Durham,
Location/Qualifiers
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Gao,F., Li,Y., Decker,J.M., Bibollet-Ruche,F., Rodenburg,C.M.,
Chen,Y., Shaw,D.R., Allen,S., Musonda,R., Shaw,G.M., Zajac,A.J. and
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/codon_start=1
/codon_start=1
/transT_table=11
/transT_table=11
/transT_table=11
/product="gag_protein"
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RIEERQNKIQQKIQQKTQQAADGKVSQNYPIVQNLQGQWVHQKLSPRTLNAWVKVIEE
KAPSPEVIPMTALSEGATPQDLATMTLNTVGGHQAAWQHKDTINEEAAEWDRLHPVH
AGPIARGQMREPFRGSDIAGTTSTLQRQIAMTGNEPIPGDYVKMTILIGLKUXVRMY
SPVSILDIKQGFKEPFRDYVDRFFKTLRAEQATQEVKNWMTDTLLVQNANPDCKTILK
ALGPGATLEEMMTACQEVGGPSHKARVLAEANSQTNSVNILMQKSNFKGKKRWFKCFN
CGKEGHIARNCRAPRKKGCWKCGKEGHQMKDCTERQANFLGKIWPSHKGRPGNFLQNR
CGKEGHIARNCRAPRKKGCWKCGKEGHQMKDCTERGANFLGKIWPSHKGRPGNFLQNR
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/mol_type="genomic DNA"
/db_xref="taxon:32630"
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                                         TTCCGCTTCGAGGAGACCACCCCCGGCCAGAAGCAGGAGGAGCAAGGACCGCGGAGACCCTG
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/mol type="unassigned DNA"
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/organism="synthetic construct"
/moi_type="unassigned DNA"
/db_xref="taxon:32630"
/note="HIV Type C Gag optimized"
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y Match Local S hes 1399	CHIRON CO	SOURCE synthetic construct ORGANISM synthetic construct artificial sequences.  REFERENCE 1 AUTHORS zur Megede, J., Barnett, S.W., Engelbre Folymuclectides encoding antigenic h polypeptides and uses thereof JOURNAL Patent: WO 0204493-A 4 17-JAN-2002;	AX455888  LOCUS  DEFINITION Sequence 4 from Patent ACCESSION AX455888  VERSION AX455888 1 GI:21714881 KEYMONDS	Oy         1420 GACCGCGAGACCCTGA	Oy 1360 CCCCCCCCCGGGAGAGCT	Db 1321 CCCGGCAACTTCCTGCAGAGCCGCC	Oy 1261 GACTIGCACCGAGCGCC	Oy 1201 TGCCGCGCCCCCGCA	Oy 1141 GGCCCCGGCGCATCG	Oy 1081 CTGGCCGAGGCGATGA	Qy 1021 CTGGACGAGATGATGA              Db 1018 CTGGACGAGATGATGA	Oy 961 GTGCAGAACGCCAACC	Qy 901 ACCCTGCGCGCGAGC
86.3%; Score 1276.8; DB 6; Length 1509; imilarity 92.5%; Pred. No. 2.9e-129; ; Conservative 0; Mismatches 77; Indels 36; Gaps 4; arragecccccacacacacacacacacacacacacacacacac	RPORATION (US); University of Stellenbosch (ZA) Location/Qualifiers 11509 /organism="synthetic construct" /mol_type="unassigned DNA" /db_xref="taxon:33630" /note="synthetic Gag of HIV strain AF110967"	es.  nett,S.W., Engelbrecht,S. and van Rensburg,B. coding antigenic hiv type c polypeptides, ses thereof. A 4 17-JAN-2002;	1509 bp DNA linear PAT 06-JUL-2002 tent WOO204493.	GACCGCGAGACCCTGACCAGCCTGAAGAGCCTGTTCGGCAACGACCCCCTGAGCCAGTAA 1479 	CCCCCCGCGAGAGCTTCCGCTTCGAGGAGACCACCCCCGGCCAGAAGCAGGAGAGCAAG 1419	CCCGGCAACTTCCTGCAGAGCCGCC	GACTIGCACCGAGCGCCAGGCCAACTTCCTTGGGCAAGATCTTGGCCCAGCCAG	TGCCGCGCCCCCCGCAAGAAGGGCTGCTGGAAGTGCGGCAAGGAGGGCCCACCAGATGAAG 1260	GGCCCCGGGCGCATCGTCAAGTGCTTCAACTGCGGCAAGGAGGGCCACATCGCCCGCAAC 1200	CTGGCCGAGGCGATGAGCCAGGCCAACACCAGCGTGATGATGCAGAAGAGAGAACTTCAAG 1140	CTGGAGGAGATGATGACCGCCTGCCAGGGGTTGGGCGGCCCAGCCACAAGGCCCGCGTG 1080	GTGCAGAACGCCAACTGCAAGACCATCCTGCGCGCTCTCGGCCCCGGCGCCAGC 1020	ACCCTGCGCGCGAGCAGAGCACCCAGGAGGTGAAGAACTGGATGACCGACACCCTGCTG 960
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CTGCGCCCGGCGGCAAGAAGTGCTACATGAATGAAGCACCTGGTGTGGGCCAGCCGCGAG 1	ORIGIN  /db_xrèf="taxon:11676"  Query Match	TITLE Microparticles for delivery of the neterologous nucleic acids JOURNAL Patent: WO 0226209-A 64 04-APR-2002; CHIRON CORPORATION (US) FEATURES Location/Qualifiers 80urce 11509 /organism="Human immunodeficiency virus 1" /mol type="nuassigned DNA"	Human immunodeficiency virus 1 (HIV-1)  M Human immunodeficiency virus 1  Viruses; Retroid viruses; Retroviridae; Lentivirus; Primat  lentivirus group.  1  O'Hagan,D., Otten,G., Donnelly,J.J., Polo,J.M., Barnett,S.  Singh,M., Ulmer,J. and Dubensky,T.W.	AX468544  LOCUS  AX468544  AX468544  DEFINITION Sequence 64 from Patent WO0226209.  ACCESSION  AX468544  VERSION  AX468544  GI:21901374	OY 1468 CTGAGCCAGTAA 1479	OY 1420 GACCGCGAGACCCTGACCAGCCTGAAGAGAGCTGTTCGGCAACGACCCC 1467	QY 1360 CCCCCCCCCAGAGACTTCCGCTTCGAGGAGACCACCCCCGGCCAGAAGCAAGAGAAGCAAG 1419	OY 1318 CGCCCCGGCAACTTCCTGCAGAGCCG	OY 1258 AAGGACTGCACCGAGCCCAGGCCAACTTCCTGGGCAAGATCTGGCCCAGCCACAAGGGC 1317	OY 1198 AACTGCCGCGCCCCCCGCAAGAAGGGCTGCTGGAAGTGCCGGCAAGGAGGCCACCAGATG 1257	Db 1138 ARGSGCCCCGGGCAACGTCAAGTGCTTCAACTGCGGCAAGGGGCCACATCGCCAAG 1197
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1138 AAGGGCCCCCGGCGCATCGTCAAGTGCTTCAACTGCCGCAAGGAGGGCCACATCGCCCCAAGTGCTTCAACTGCTCAAGTGGCAAGAGGGCCACATCGCCCAAGTGCTTCAACTGCTCAAAGTGCTTCAACTGCCGCAAAGAGGAGGGCCACCAAGTGCTTCAACTGCTCAAAGTGCTGCAAAGAGGGCCACCAAGATGCCAAAGTGCTGCAAAGAGGCTTGCTGGAAAGTGCGGCAAAGAGGGCCACCCAGATG 1257	958 GTGCAGAACGCCAACCCCGACTGCAAGACCATCCTGCGCGCCTCTCGGCCCCACCCCACCCA	901 ACCCTGCGGCCGAGCAGCAGCCCAGGAGGTGAAGAACTGGATGACCGACACCCTGCTG 960	781 AAGCGGTGGATCATCCTGGGCCTGAACAAGATCGTGCGGATGTACAGCCCCGTGAGCATC 840	661 ATCGCCCCGGCCAGATGCGCGAGCCCCGGGCAGCAGCAGCACCAGCAGCACCAGCAG	601 GACACCATCAACGAGGAGGCCGCCGAGTGGGACCGCCGTGCACCCCCGGGCCGCCCC 660	541 GACCTGAACACGATGTTGAACACCGTGGGGCCACCAGGCCGCCATGCAGATGCTGAAG 600 	481 GCCTTCAGCCCCGAGGTGATCCCCCATGTTCACCGCCCTGAGGGAGG	421 GIGCACCAGGCCATCAGCCCCCGCACCCTGAACGCCTGGGTGAAGGTGATCGAGGAGAAG 480	361 GCCGACAAGGGCAAGGTGAGCCAGAACTACCCCATCGTGCAGAACCTGCAGGGCCAGATG 420 	301 CTGGACAAGATCGAGGAGGAGGACAAAGTGCCAGCAGAAGATCCAGCAGGCCGAGGCC 360 	

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361 GCCGACGGCAAGGTGAGCCAGAACTACCCCAYCGTGCAGAACCTGCAGAGGCCAGATG 417 421 GTGCACCAGGCCATCAGCCCCCGCACCCTGAACGCCTGGATGAAGGTGAATCGAGGAGAAG 480	GCCGACAAGGGCAAGGTGAGCCAGAACTACCCCATCGTGCAGAACCTGCAGGGCCAGATG	301 CTGGACAAGATCGAGGAGGAGCAGAACAAGTGCCAGCAGAAGATCCAGCAGGCCGAGGCCC 360	241 ACCGTGGCCACCCTGTACTGCGTGCACGAGAAAGATCGAGGTCCGCGACACCAAGGAGGCC 300			igicigicaagaagcactacatgctv Tryspoctugaagcocoggoctygctv	CTGCCCCCGGCGCAAGAAGTGCTACATGATGAAGCACCTGGTGTGGGCCAGCCGGGAG	1 ATGGGCGCCGCGCGAGCATCCTTGCGCGGCGGCAAGCTGGAAGCGCCTTGGGAGGCGCATCCGC 60	y Match 86.1%; Score 1273.6; DB 6; Length 1509; Local Similarity 91.8%; Pred. No. 6.4e-129; hes 1388; Conservative 12; Mismatches 76; Indels 36; Gaps 4;	/db_xref="taxon:11676"	<pre>gource 11509  . /organism="Human immunodeficiency virus 1"     /mol type="unassigned DNA"</pre>	L Patent: WO 0226209-A 68 04-APR-2002; CHIRON CORPORATION (US) Location/Qualifiers		Human immur SM Human immur Viruses; Re	ION Sequence 68 from Patent WO0226209. NAVA68548 AX468548.1 GI:21901378	O AX468548	1468 CTGAGCCAGTAA 1479             1498 CTGAGCCAGTAA 1509	1420 GACCGCGAGACCCTGACCAGCCTGAAGAGGCTGTTCGGCAACGACCCC 1467	1360 CCCCCCGCCGAGAGCTTCCGCTTCGAGGAGACCACCCCCGGCCAGAAGCAGGAGAGCAAG 1419	1318 CGCCCCGGCAACTTCCTGCAGAACCGCAGCGAGCCAGCCGCCCCCACCGTGCCCACCGCC 1377
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1468 CTGAGCCAGTAA 1479            1498 CTGAGCCAGTAA 1509	1420 GACCGCGAGACCCTGACCAGCCTGAAGAGCCTGTTCGGCAACGACCACCC 146/			1258 AAGGACTGCACCGAGCGCAAGTTCCTGGGCAAGATCTGGCCCAGAGCCACAAGGGC 1317 1318 CGCCCCGGCAACTTCCTGCAGAGCCG	1198 AACTGCCGCGCCCCCCGCAAGAAGGGCTGCTGGAAGTGCGGCAAGGAGGGCCACCAGATG 1257 1258 AAGGACTGCACCGAGCGACGCCAACTTCCTGGGCAAGATCTGGCCCAGCCACAAGGGC 1317	AACTGCCGCGCCCCCCGCAAGAAGGGCTCCTGGAAGTGCGGCAAGGAGGGCCACCAGATG	1138 AAGGGCCCCGGCGCATCGTCCAACTGCTTCAACTGCGCCAAGGAAGG			958 GTGCAGAACGCCAACCCCGACTGCAAGACCATCCTGCGGCCCAGCCAG	GTGCAGAACGCCAACCCCGACTGCAAGACCATCCTGCGCGCTCTCGGCCCCGGCGCCCAGC	901 ACCCTGCGCGCGAGCAGAGCACCCAGGAGGTGAAGAACTGGATGACCGACACCCTGCTG 960			721 CTGCAGGAGCAGATCGCCTGGATGACCAGCAACCCCCCGTGCCCGTGGGCGACAACCACCACCAGCAGCAGCAGCAGCAACATCTAC 777 718 CTGCAGGAGCAGATCGCCTGGATGACCAGCAACCCCCCGTGGCCGTGGGCGACAACCACCACCAGCAGCAGCAACATCTAC 777	GIGGCCCCGGCCAGATGCGCGACCCCCGCGCGACCACCACCACCACCACCACCACC	601 GACCATCAACSAGGAGGCCCCCGAGTGGGAGACCCCCGTGCACCCCGTGCAGCCAGC			

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Patent: WO 0204493-A 21 17-JAN-2002;
CHIRON CORPORATION (US); University of Stellenbosch (ZA)
Location/Qualifiers
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Sequence 21 from Patent
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AX455905.1 GI:21714897
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GACACCATCAACGAGGAGGCCGCCGAGTGGGACCGCGTGCACCCCGTGCACCCCGGCCCCC
                                  GACCTGAACACGATGTTGAACACCGTGGGCGGCCACCAGGCCGCCATGCAGATGCTGAAG 600
                                                                            GCCGACAAGGGCAAGGTGAGCCAGAACTACCCCATCGTGCAGAACCTGCAGGGCCAGATG 420
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/mol_type="unassigned DNA"
/db_xref="taxon:32630"
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Pred. No. 1.5e-127;
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Patent: WO 0231943-A 168 25-APR-2002;
GOVERNMENT OF THE UNITED STATES (US)
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AAGCGGTGGATCATCCTGGGCCTGAACAAGATCGTGCGGATGTACAGCCCCGTGAGCATC 840
                                                                                           GTGCACCAGGCCATCAGCCCCGCACCCTGAACGCCTGGGTGAAGGTGATCGAGGAGAAG 480
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/mol type="unassigned DNA"
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/noTe="plasmid pVR1012x/s containing
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Patent: WO 0232943-A 174 25-APR-2002;
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/mol type="unassigned DNA"
/mol type="taxon:32630"
/more="plasmid pVR1012x/s conta
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              81.5%;
 Score 1206; DB 6;
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Sequence
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The genome of the hiv-1 inter-subtype (c/b', Patent: WO 0136614-A 2 25-MAY-2001; Geneart GMBH Gessellschaft fuer angewandte Shao, Yiming (CN)
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Human immunodeficiency virus
Viruses; Retroid viruses; Retroviridae;
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                                       ATCCGCCAGCTGCACCCCCCCCCCCCCAGACCGCAGCGAGCAGCTGAAGAGCCTGTTCAAC
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/mol_type="unassigned DNA"
/db_xref="taxon:12721"
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KEYWORDS
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Increased expression and immunogenicity of sequence-modifi immunodeficiency virus type 1 gag gene
J. Virol. 74 (6), 2628-2635 (2000)
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Synthetic construct gag
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1 (bases 1 to 1509)
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CTGGAGCGCTTCGCCGTGAACCCCGGCCTGCTGGAGACCAGCGAGGGCTGCCGCCAGATC
               CTGGAGAAGTTCGCCCTGAACCCCGGCCTGCTGGAGAACCAGCGAGGGCTGCAAGCAGATC
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                                                                                        CTGCGCCCCGGCGGAGAAGTGCTACATGATGAAGCACCTGGTGTGGGCCAGCCGGGAG
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Avnpglletsbecroilgolopsloyrsbelrslymyvatiyevhoridykdykker
Kieedonkskkkaqoaaaagtgnssovsonypivoklogavhoaispertlawayk
Verkabspevipmtsalsbegarpodlatmilntygghoaamomlketineeaaewdrvh
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Phaagfiapgomerbrosdlaststloeologamyminppipwediykemiilglakkvi
Rmysptsildirggpkerproydrfkktlabeaasodkamymettilkonanpoktiv
Rmysptsildirggpkerproydrfkktlabeaasodkymamtetilkonanpoktiv
Rmysptsildirggpkerproydrfkktlabeasoksottapikkupsykgpenervi
Lkalgbatilebmtroggvegpkerkkocteroasonotteroatpikkupsykgpenervi
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/protein_id="AAF43628.1"
/db_xref="GI:7248703"
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Location/Qualifiers
1. 1509
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/mol_type="genomic DNA"
/db_xref="taxon:32630"
                                                                                                                                                                                                                                                                                                      JOSRPEPTAPPEESFRFGEEKTTPSQKQEPIDKELYPLTSLRSLFGNDPSSQ"
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0; Mismatches 132; I
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	OGCCTGCCAGGGCGTGGGCGGCCCAGCCAC	CGCCGAGCAGAGCACCCAGGAGGTGAAGAACTGGATGACC	CITGGCCIGNACAACHICGICGAIGIACACCCCTIGGCCIAGACAACHICGIGGCAACHACAACAICGIGCGAACHACACGCCGCGACTACGTGGACGGCCCAACGAACGACGACTACGTGGACGGCCCAACGAACG	CCAGCAACCCCCCATCCC	COCCOGAGTIGGAACCGCGTGCACCCCGTGCACCCCGTGCACCCCGTGCACCCCGTGCACCCCGTGCACCCCGGCACACCCCGGCCGG	RECECATGITEACEGECETGAGEGAGGGE	INCCAGAACTACCCCATOGIGCAGAACCTG INCCAGAACTACCCCATOGIGCAGAACCTG IGCCAGAACTACCCCATOGIGCAGAACCTG ICCCGCACCCTGAACGCTGGGTGAAGGTG IIIIIIIIIIIIIIIIIIIIIIIIIII	200 100 100 100 100 100 100 100 100 100		Ş
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Search completed: May 28, 2004, 13:23:24 Job time : 6085.87 secs

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Result
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1: /cgn2_6/ptodata/2/ina/5A_COMB.seq:*

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US-09-475-515-74
US-09-475-515-73
US-09-184-418C-100
US-09-184-418C-110
US-09-184-418C-17
US-09-184-418C-18
US-09-184-418
US-09-18
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RESULT 2
US-09-475-515-9
; Sequence 9, Application US/09475515A
; Patent No. 6602705
; GENERAL INFORMATION:
; APPLICANT: EDRAWETS, Susan
; APPLICANT: ZUR MEGEDE, Jan
; APPLICANT: SRIVASTAVA, Indresh
; APPLICANT: LIAN, Ying
; APPLICANT: HARTOG, Karin
; APPLICANT: LIU, Hong
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1 GACATCCGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC	Query Match 97.3%; Score 58.4; DB 4; Les Best Local Similarity 98.3%; Pred. No. 2.7e-10; Matches 59; Conservative 0; Mismatches 1; I	ORGANISM: Artificial Sequence PRATURE: OTHER INFORMATION: Description of Artificial Sequence: OTHER INFORMATION: Gag Major Homology Region 3-09-475-515-20	CURRENT EPLICATION NUMBER: US/09/475,515A CURRENT FILING DATE: 1999-12-30 NUMBER OF SEQ ID NOS: 90 SOFTWARE: PatentIn Ver. 2.0 SEQ ID NO 20 LENGTH: 60	GREER, Catherine SELBY, Mark WALKER, Christopher NVENTION: IMPROVED EXPRESSION OF HIV NVENTION: OF VIRUS-LIKE PARTICLES FAME: 1601 002	GENERAL INFORMATION: APPLICANT: BARNETT, Susan APPLICANT: ZUR MEGERE, Jan APPLICANT: SRIVASTAVA, Indresh APPLICANT: LIAN, Ying APPLICANT: LIAN, Ying APPLICANT: HARTOG, Karin APPLICANT: LIANTOG, Karin	ALIGNMENTS	488-	.4 55.7 9709 4 US-09-072-733-A .4 55.7 9709 2 US-08-188-583-A .4 66.7 0700 3 US-08-188-363-	33.4 55.7 7228 4 US-09-678-437-1 33.4 55.7 7399 2 US-08-418-848A-	.4 55.7 7228 3 .4 55.7 7228 4	33.4 55.7 7228 2 33.4 55.7 7228 3	33.4 55.7 7228 33.4 55.7 7228	33.4 55.7 5362 4 US- 33.4 55.7 7228 2 US-	33.4 55.7 5362 3 US-08-463-210-5	33.4 55.7 4307	
GGACCGCTTCTTCAAGACC 60              GGACCGCTTCTACAAGACC 60	Length 60; Indels 0; Gaps 0;	ce: synthetic p55	*	POLYPEPTIDES AND PRODUCTION			5	Sequence 5, Appli Sequence 1 Appli	9,	129, 128,			128,	ກຸ້ນ	Sequence 1, Appli Sequence 1, Appli	

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RESULT 4
US-09-475-515-5
; Sequence 5, Application US/09475515A
; Patent No. 6602705
; GENERAL INFORMATION:
; APPLICANT: BARNETT, Susan
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US-09-475-515-4
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Best Local S
Matches 59
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APPLICANT: SELBY, Mark
APPLICANT: SELBY, Mark
APPLICANT: WALKER, Christopher
TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION
TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES
FILE REFERENCE: 1621.002
CURRENT APPLICATION NUMBER: US/09/475,515A
CURRENT APPLICATION DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 90
SOFTWARE: PATENTIN VOS: 90
SOFTWARE: PATENTIN VOS: 90
SOFTWARE: PATENTIN VOS: 90
SOFTWARE: PATENTIN VOS: 2.0
                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQ ID NO 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: LIAN, Ying
APPLICANT: HARTOG, Karin
APPLICANT: HIU, Hong
APPLICANT: GREER, Catherine
APPLICANT: SELBY, Mark
APPLICANT: WALKER, Christopher
APPLICANT: WALKER, Christopher
TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION
TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES
FILE REFERENCE: 1621.002
CURRENT APPLICATION NUMBER: US/09/475,515A
CURRENT PILING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 90
SOFTWARE: Patentin Ver. 2.0
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APPLICANT: ZUR MEGEDE, Jan
APPLICANT: SRIVASTAVA, Indresh
                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: DNA ORGANISM: Artificial Sequence FEATURE:
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TYPE: DNA
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5. 6602705
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                                                                                                                                                                                                                                                                             97.3%;
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98.3%;
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Pred. No. 3.6e
0; Mismatches
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Pred. No. 3.5e-10;
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RESULT 6 US-09-475-515-79

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; ORGANISM: Artificial Sequence ; FEATURE: , OTHER INFORMATION: Description of Artificial Sequence: GP1 US-09-475-515-78
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SEQ ID NO 78
LENGTH: 1865
                                                                                  Matches
                                                                                                                           Query Match
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APPLICANT: GEREE, Catherine
APPLICANT: SELBY, Mark
APPLICANT: SELBY, Mark
APPLICANT: WALKER, Christopher
TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION
TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES
FILE REFERENCE: 1621.002
CURRENT APPLICATION NUMBER: US/09/475,515A
CURRENT FILING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: BARNETT, Susan
APPLICANT: ZUR MEGEDE, Jan
APPLICANT: SRIVASTAVA, Indresh
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APPLICANT: GREER, Catherine
APPLICANT: SELBY, Mark
APPLICANT: WALKER, Christopher
APPLICANT: WALKER, Christopher
TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION
TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES
FILE REFERENCE: 1621.002
CURRENT FALLON NUMBER: US/09/475,515A
CURRENT FILLING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 90
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APPLICANT: SRIVASTAVA, Indresh
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TYPE: DNA
ORGANISM: Artificial Sequence
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APPLICANT: HARTOG, Karin
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                                                                                                                                                                                                                                                           TYPE: DNA
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                                                                                                         Local
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                                         1 GACATCCGCCAGGGCCCCAAGGAGCCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC 60
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                                                                                                      h 97.3%;
Similarity 98.3%;
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6602705
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                                                                                  Conservative
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98.3%;
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                                                                                                      Score 58.4; DB 4; Pred. No. 3.7e-10;
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Pred. No. 3.7e-10;
                                                                                  Mismatches
                                                                                                                           Length 1865;
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                                                                                    Indels
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Sequence 79, Application US/09475515A Patent No. 6602705

INFORMATION:

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GENERAL INFORMATION:

GENERAL INFORMATION:

APPLICANT: BARNETT, Susan

APPLICANT: ETAN MEGEDE, Jan

APPLICANT: LIAN, Ying

APPLICANT: LIAN, Ying

APPLICANT: HARTOG, Karin

APPLICANT: HARTOG, Karin

APPLICANT: GEBER, Catherine

APPLICANT: GEBER, Christopher

ITILE OF INVENTION: MPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION

ITILE OF INVENTION: OF VIRUS-LIKE PARTICLES

FILE REFERENCE: 1621.002

CURRENT APPLICATION NUMBER: US/09/475,515A

CURRENT FILING DATE: 1999-12-30

NUMBER OF SEQ ID NOS: 90

SOFTWARE OF SECTION O
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; TYPE: DNA
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: GP2
US-09-475-515-79
                                                                                                                                                                                                     Best
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SEQ ID NO 7
LENGTH: 2031
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                                                                                                                                                                                                                                               Query Match
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CURRENT FILING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 90
SOPTWARE: Patentin Ver. 2.0
SEQ ID NO 79
SEQ ID NO 79
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APPLICANT: SELBY, Mark
APPLICANT: WALKER, Christopher
APPLICANT: WALKER, Christopher
TITLB OP INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION
TITLB OP INVENTION: OP VIRUS-LIKE PARTICLES
FILB REFERENCE: 1621.002
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APPLICANT: GREER, Catherine
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APPLICANT: ZUR MEGEDE, Jan
APPLICANT: SRIVASTAVA, Indresh
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APPLICANT: HARTOG, Karin
                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: synthetic
OTHER INFORMATION: HIV-Gag/HCV-core fusion polypeptide
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                                                                                                                                                                                                     Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        97.3%;
Local Similarity 98.3%;
les 59; Conservation
862 GACATCCGCCAGGGCCCCAAGGAGCCCTTCCGCGAACTACGTGGACCGCTTCTACAAGACC 921
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                                                                               GACATCCGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC 60
                                                                                                                                                               Conservative
                                                                                                                                                                                                     97.3%;
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                                                                                                                                                           Score 58.4; DB 4; Length 2031; Pred. No. 3.7e-10; 0; Mismatches 1; Indels 0
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Pred. No. 3.7e-10;
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                                                                                                                                                               0;
                                                                                                                                                               Gaps
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; OTHER INFORMATION: Description of Artificial Sequence; OTHER INFORMATION: gp160.modUS4.delV1/V2.gag.modSF2 US-09-475-515-75
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GENERAL INFORMATION:
APPLICANT: BARNETT, Susan
APPLICANT: ZUR NEGEDE, Jan
APPLICANT: SRIVASTAVA, Indresh
                                                                                                                                                                                                                       SOFTWARE: PatentIn Ver. 2.0 SEQ ID NO 75
Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: 1
APPLICANT: 1
APPLICANT: 1
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Best Local Similarity
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SEQ ID NO 6
                                                                                                                                                                                                                                                            APPLICANT: HARTOG, Karin
APPLICANT: LIU, Hong
APPLICANT: LIU, Hong
APPLICANT: GREER, Catherine
APPLICANT: "SELBY, Mark
APPLICANT: "SELBY, Mark
APPLICANT: "MALKER, Christopher
TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION
TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES
TILE REFERENCE: 1621.002
CURRENT PILING DATE: 1999-12-30
TURBER OF SEQ ID NOS: 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: GREEF, Catherine
APPLICANT: SELBY, Mark
APPLICANT: WALKER, Christopher
APPLICANT: WALKER, Christopher
TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION
TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES
FILE REFERENCE: 1621.002
CURRENT APPLICATION NUMBER: US/09/475,515A
CURRENT FILING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 90
NUMBER OF SEQ ID NOS: 90
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APPLICANT: HARTOG, Kai
APPLICANT: LIU, Hong
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                               TYPE: DNA
ORGANISM: Artificial Sequence
PEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: DNA ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                               ENGTH: 4472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 4319
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HARTOG, Karin
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ZUR MEGEDE, Jan
SRIVASTAVA, Indresh
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97.3%;
98.3%;
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Score 58.4; DB 4; Length 4472; Pred. No. 4e-10;
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Matches

59;

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Mismatches

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OTHER INFORMATION:
OTHER INFORMATION:
US-09-475-515-76
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                                                                                                          SOFTWARE: PatentIn Ver. 2.0 SEQ ID NO 74
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                                                                                                                                              APPLICANT: GREBY, MARK
APPLICANT: GREBY, MARK
APPLICANT: WALKER, Christopher
TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION
TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES
FILE REFERENCE: 1621.002
CURRENT PILLNG DATTS: 1999-12-30
NUMBER OF SEQ ID NOS: 90
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CURRENT APPLICATION NUMBER: US/09/475,515A
CURRENT FILING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 90
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                                                                                                                                                                                                                                                                                                                                              APPLICANT: ZUR MEGEDE, Jan
APPLICANT: SRIVASTAVA, Indresh
APPLICANT: LIAN, Ying
APPLICANT: HARTOG, Karin
APPLICANT: LIU, Hong
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APPLICANT: LIU, Hong
APPLICANT: GREER, Catherine
APPLICANT: SELBY, Mark
APPLICANT: WALKER, Christopher
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: BARNETT, Susan
APPLICANT: ZUR MEGEDE, Jan
APPLICANT: SRIVASTAVA, Indresh
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FEATURE: OTHER INFORMATION: Description of Artificial Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 4608
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
                                        TYPE: DNA
ORGANISM: Artificial Sequence
                                                                                   ENGTH: 4689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3930 GÁCATCCGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTACAAGACC 3989
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4, Application US/09475515A 6602705
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98.3%;
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; OTHER INFORMATION: Description of Artificial Sequence: ; OTHER INFORMATION: gp160.modUS4.gag.modSF2 US-09-475-515-73
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US-09-552-950-2
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US-09-552-950-2
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Matches
                                                                                     CURRENT APPLICATION NUMBER: US/09/552,950
CURRENT FILING DATE: 2000-04-20
NUMBER OF SEQ ID NOS: 22
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 2
LENGTH: 4307
TYPE: DNA
                                                                                                                                                                                                                   Sequence 2, Application US/09552950
Patent No. 6541248
GENERAL INFORMATION:
APPLICANT: Oxford Biomedica (UK) Limited
TITLE OF INVENTION: Anti-Viral Vectors
FILE REFERENCE: 674524-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: PatentIn Ver. 2.0 SEQ ID NO 73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
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Patent No. 6
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CURRENT FILING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: GREER, Catherine
APPLICANT: SELBY, Mark
APPLICANT: WALKER, Christopher
TITLE OP INVENTION: IMPROVED EXPRESSION OF HIV FOLYPEPTIDES AND PRODUCTION
TITLE OP INVENTION: OF VIRUS-LIKE PARTICLES
FILE REPERENCE: 1621.002
             OTHER INFORMATION: Description of Artificial Sequence:gagpol-SYNgp - codon OTHER INFORMATION: optimised gagpol sequence
                                                  FEATURE:
                                                                    ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: DNA
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les 59; Conserv
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SRIVASTAVA, Indresh
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98.3%;
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98.3%;
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Pred. No. 4e-10;
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Query Match

79.78;

Score 47.8;

DB 4;

Length 4307

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Search completed: May 28, 2004, 13:26:22 
Job time : 6.49156 secs
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US-09-184-418C-100
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US-09-552-950-5
; Sequence 5, Application US/09552950
; Patent No. 6541248
; Patent No. 6541248
; GENERAL INFORMATION:
; APPLICANT: Oxford Biomedica (UK) Limited
; TITLE OF INVENTION: Anti-Viral Vectors
; FILE REFERENCE: 674524-2004
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                                                                                                                                                                                                                                                                            ORGANISM: Human immunodeficiency virus type 1; FEATURB:
OTHER INFORMATION: isolate=94IN476.104; gene=gag
US-09-184-418C-100
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Patent No. 6492110
Patent No. 6492110
GENERAL INFORMATION:
APPLICANT: Habn, Beatrice
APPLICANT: Habn, Beatrice
APPLICANT: Shaw, George
TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
TITLE OF INVENTION: HMUNODEFICIENCY VIRUS TYPE 1
FILE REFERENCE: D6287
CURRENT APPLICATION NUMBER: US/09/184,418C
CURRENT APPLICATION NUMBER: US/09/184,418C
CURRENT FILING DATE: 1999-11-02
NUMBER OF SEQ ID NOS: 112
SEQ ID NO 100
LENGTH: 1476
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SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 5
LENGTH: 9772
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                                                                                                                                                                                Query Match 58.3%; Score 35; DB 4; Length 1476; Best Local Similarity 74.6%; Pred. No. 0.011; Matches 44; Conservative 0; Mismatches 15; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 79.7%; Score 47.8; DB 4; Length 9772; Best Local Similarity 88.1%; Pred. No. 1.1e-06; Matches 52; Conservative 0; Mismatches 7; Indels 0
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ORGANISM: Artificial Sequence
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OTHER INFORMATION: Description of Artificial Sequence:pSYNGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 841 GACATAAGACAAGGGCCAAAGGAACCCTTTAGAGACTATGTAGACCGGTTCTTTAAAAC 899
                                                                                                                                         1 GACATCCGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGAC 59
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Result
No.
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Maximum DB seg length: 200000000
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      9
10
11
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13
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score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
                   100.0
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Match
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60
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gapop 10.0 , Gapext 1.0
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| Cogn2 6/ptodata/1/pubpna/US07 PUBCOMB.seq:*
| Cogn2 6/ptodata/1/pubpna/PCT NEW PUB.seq:*
| Cogn2 6/ptodata/1/pubpna/US06 NEW PUB.seq:*
| Cogn2 6/ptodata/1/pubpna/US06 PUBCOMB.seq:*
| Cogn2 6/ptodata/1/pubpna/US07 NEW PUB.seq:*
| Cogn2 6/ptodata/1/pubpna/PCTUS PUB.seq:*
| Cogn2 6/ptodata/1/pubpna/PCTUS PUBCOMB.seq:*
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Listing first 45 summaries
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Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                    /cgn2_6/ptodata/1/pubpna/US08_NEW_PUB.seq:*
/cgn2_6/ptodata/1/pubpna/US08_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US08_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US09A_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US09C_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US09C_PUBCOMB.seq:*
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/cgn2_6/ptodata/1/pubpna/US09C_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US10A_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*
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/cgn2_6/ptodata/1/pubpna/US60_NEW_PUB.seq:*
/cgn2_6/ptodata/1/pubpna/US60_PUBCOMB.seq:*
                    1914
2493
4350
60
1268
1515
1853
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     US-09-967-464-64
US-09-967-464-68
US-09-99-575-21
US-09-899-575-21
US-10-168-843A-27
US-10-168-843A-31
US-10-168-843A-31
US-10-168-843A-33
US-10-387-336-9
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US-10-387-336-78
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8870.358 Million cell updates/sec
                                                                                                                                                                                                                                                       Description
                                                                Sequence 2, Appli
Sequence 64, Appli
Sequence 68, Appli
Sequence 4, Appli
Sequence 27, Appl
Sequence 27, Appl
Sequence 29, Appl
Sequence 33, Appli
Sequence 33, Appli
Sequence 30, Appli
                                    Sequence
                                                     Sequence
                    Appl
Appl
Appl
   RESULT 2
US-09-967-464-64
; Sequence 64, Application US/09967464
; Publication No. US20030138453A1
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58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	50.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4		58.4	58.4	٠	•	٠	•	•	•	•	58.4	•	50 .4
97.3	97.3	97.3		97.3	97.3	97.3		97.3	97.3	97.3	97.3	•	•	•	97.3	97.3	97.3		97.3		97.3	•		•					97.3	
4773	4773	4773	4773	4766	4689	4608	4472	4319	3999	3999	3999	3999	3999	3999	3564	3564	3564	3564	3496	3496	3205	3205	2799	2799	2799	2799	2799	2799	2031	1865
15	15	15	15	13	13	13	13	<u>1</u> 3	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	13	13
0-190	-10-1	-10-241-009-	-10-241-009-	US-10-387-336-73	-10-387-336-	4	US-10-387-336-75	-336-	US-10-190-434B-11	-10-	-10-1	-10-241-	-10-241-	US-10-241-009-9	US-10-190-434B-14	US-10-190-434B-13	-10-	US-10-241-009-13	US-10-190-434B-15	-10-	US-10-190-434B-17	-10-241	0-190	-10-	-10-190	US-10-190-434B-18	-10-241	US-10-241-009-18	-10-387-336-	US-10-387-336-79
55,	16,	55,	16, App	73, App	74,	76	75	þ	11	10	Sequence 9, Appli	11	10	,	14	13,	Sequence 14, Appl	13	15	15	17	17,	74,	Sequence 11, Appl	e 53,	e 18,	53,	e 18,		79,

# ALIGNMENTS

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Sequence 2, Application US/09899575

; Publication No. US20030223961A1

; GENERAL INFORMATION:

; APPLICANT: Engelde, Jan

; APPLICANT: Barnett, Susan W.

; APPLICANT: Barnett, Susan W.

; APPLICANT: Par Normaburg, Entrelita Janse

; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C

; TITLE OF INVENTION: POLYPETIDES, POLYPETIDES AND USES THEREOF

; FILE REFERENCE: PP01631.102

; CURRENT APPLICATION NUMBER: US/09/899,575

; CURRENT APPLICATION NUMBER: US/09/899,575

; CURRENT FILING DATE: 1999-12-30

; NUMBER OF SEQ ID NOS: 135

; SOPTWARE: Patentin Ver. 2.0

; SQ ID NO 2

; LENGTH: 60

; TYPE: DNA

ORGANISM: Human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 1
US-09-899-575-2
                                                                                                                                                                                              US-09-899-575-2
                                                                                            Query Match
Best Local S
Matches 60
                       1 GACATCCGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACCC
                                                                                            Similarity
60; Conserva
GACATCCGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTCGACCCCTTCTTCAAGACC
                                                                                            100.0%; Score 60; DB 13; larity 100.0%; Pred. No. 2.2e-11; Conservative 0; Mismatches 0;
                                                                                                                                           Length 60;
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                                                                                                  Gaps
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LENGTH: 1509
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 68, Application US/09967464 Publication No. US20030138453A1 GENERAL INFORMATION:
                                                                                                                                                                                                                    SOPTWARE: PatentIn version 3.1
SEQ ID NO 68
LENGTH: 1509
                                                                             Matches
                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                        APPLICANT: Dubensky, Jr., Thomas W.
TITLE OF INVENTION: MICROPARTICLES FOR DELIVERY OF HETEROLOGOUS NUCLEIC ACIDS
FILE REFERENCE: PP16269.004
CURRENT APPLICATION NUMBER: US/09/967,464
CURRENT FILING DATE: 2002-04-11
PRIOR APPLICATION NUMBER: 60/236,105
PRIOR FILING DATE: 2000-09-28
PRIOR APPLICATION NUMBER: 60/315,905
PRIOR RILING DATE: 2001-08-30
NUMBER: OF SEQ ID NOS: 68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: O'Hagan, Derek
APPLICANT: Otten, Gillis
APPLICANT: Domnelly, John J.
APPLICANT: Polo, John M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: 60/315,905
PRIOR FILING DATE: 2001-08-30
NUMBER OF SEQ ID NOS: 68
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CURRENT FILING DATE: 2002-04-11
PRIOR APPLICATION NUMBER: 60/236,105
PRIOR FILING DATE: 2000-09-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Singh, Mamohan
APPLICANT: Ulmer, Jeffrey
APPLICANT: Dubensky, Jr., Thomas W.
TITLE OP INVENTION: MICROPARTICLES FOR DELIVERY OF HETEROLOGOUS NUCLEIC ACIDS
FILE REFERENCE: PP16269.004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOPTWARE:
                                                                                                                                                                            ORGANISM: Human immunodeficiency virus type 1
                                                                                                                                                                                                   TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: O'Hagan, Derek
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM: Human immunodeficiency virus type 1
                                                                                                Local Similarity
  841
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                               1 GACATCCGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC
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  GACATCCGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Singh, Mamohan
Ulmer, Jeffrey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Donnelly, John J. Polo, John M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Barnett, Susan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Barnett,
                                                                             Conservative
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                                                                                                100.0%;
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100.0%; Pred. No. 1.9e-11;
tive 0; Mismatches 0;
                                                                                            Score 60; DB 10;
Pred. No. 1.9e-11;
                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 1509;
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  900
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RESULT 4

RESULT 6 US-10-168-843A-27

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                                                                                                                                                                                              ; ORGANISM: Artificial Sequence; FEATURE:
FEATURE:
OTHER INPORMATION: Description of Artificial Sequence: synthetic Gag; OTHER INPORMATION: coding sequence of HIV strain AF110967
US-09-899-575-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
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US-09-899-575-21
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQ ID NO 4
                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                               SEQ ID NO 21
LENGTH: 1509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 21, Application US/09899575
Publication No. US20030223961A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Zur Megede, Jan
APPLICANT: Barnett, Susan W.
APPLICANT: Egnelbrecht, Susan
APPLICANT: Egnelbrecht, Susan
APPLICANT: van Rensburg, Estrelita Janse
TITLB OF INVENTION: POLYMUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C
TITLB OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION NUMBER: US/09/899,575
CURRENT FILING DATE: 2001-07-05
PRIOR APPLICATION NUMBER: 09/475,704
PRIOR FILING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 135
SOPTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR FILING DATE: 1999-12-30 NUMBER OF SEQ ID NOS: 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION NUMBER: 09/475,704 PRIOR FILING DATE: 1999-12-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PILE REFERENCE: PP01631.102
CURRENT APPLICATION NUMBER: US/09/899,575
CURRENT FILING DATE: 2001-07-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Barnett, Susan W.
APPLICANT: Egnelbrecht, Susan
APPLICANT: Egnelbrecht, Susan
APPLICANT: van Rensburg, Estrelita Janse
TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE
TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILE REFERENCE: PP01631.102
                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: PatentIn Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OTHER INFORMATION: Description of Artificial Sequence: OTHER INFORMATION: of HIV strain AF110967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Zur Megede, Jan
                                                                                                                                                                                                                                                                                                                             TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH: 1509
                                                                                                                       Local Similarity
  841 GACATCCGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          841 GACATCCGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACG
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                                              1 GACATCCGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC 60
                                                                                                  60;
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                                                                                                  ilarity 100.0%;
Conservative
                                                                                                100.0%; Score 60; DB 13; 100.0%; Pred. No. 1.9e-11; ive 0; Mismatches 0;
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                                                                                                                                                 Length 1509;
                                                                                                     Indels
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; OTHER INFORMATION: Description of Artificial Sequence: Chimeric; OTHER INFORMATION: polynucleotide US-10-168-843A-29
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US-10-168-843A-29
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                                                                                                                                 Sequence 31, Application US/10168843A Publication No. US20030108562A1 GENERAL INFORMATION:
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SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 27
FEBRUARE: Patentin Ver. 2.1
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CURRENT FILING DATE: 2002-(
NUMBER OF SEQ ID NOS: 33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Medical Research Council
APPLICANT: International Aids Vaccine Initiative
APPLICANT: University of Nairobi
TITLE OF INVENTION: Improvements in or Relating to Immune Responses to HIV
FILB REPERENCE: MJL/C1248'1/M
                TITLE OF INVENTION: Improvements in or Relating to FILB REFERENCE: MJL/C1248'1/M
                                                         APPLICANT: Medical Research Council
APPLICANT: International Aids Vaccine Initiative
APPLICANT: University of Nairobi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Medical Research Council
APPLICANT: International Aids Vaccine Initiative
APPLICANT: University of Nairobi
TITLS OF INVENTION: Improvements in or Relating to
FILE REFERENCE: MJL/C1248*1/M
CURRENT PPLICATION NUMBER: US/10/168,843A
CURRENT FILING DATE: 2002-09-24
CURRENT APPLICATION NUMBER: US/10/168,843A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH: 1914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OTHER INFORMATION: Description of Artificial Sequence: Chimeric OTHER INFORMATION: polymucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PEATURE:
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Local Similarity 100.0%;
Local Similarity 100.0%;
hes 60; Conservative 0
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                                                                                                                                                                                                                                                                                                                           GACATCCGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC 60
                                                                                                                                                                                                                                                                                                 GACATICCGCCAGGGCCCAAGGAGCCCTTTCCGCGACTACGTGGACCGCTTCTTCAAGACC 525
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                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 60; DB 15; llarity 100.0%; Pred. No. 1.9e-11; Conservative 0; Mismatches 0;
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Pred. No. 1.9
0; Mismatches
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1.9e-11;
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                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 1914;
                                           Immune Responses to
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GENERAL INFORMATION:

APPLICANT:

BARNETT,

Susan

ZUR MEGEDE, Jan SRIVASTAVA, Indresh

APPLICANT: APPLICANT:

HARTOG, LIU, Hong LIAN,

Karin

Ying

APPLICANT:

APPLICANT: APPLICANT:

GREER, Cath

Catherine

APPLICANT: WALKER, Christopher
TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES
TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES
FILE REFERENCE: 1621.002
CURRENT APPLICATION NUMBER: US/10/387,336
CURRENT FILING DATE: 2003-03-11
PRIOR APPLICATION NUMBER: US/09/475,515A

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US-10-168-843A-33
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                                 US-10-387-336-20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQ ID NOS:
SOPTWARE: Patentin Ver
SEQ ID NO 31
Sequence 20, Application US/10387336 Publication No. US20030223964A1
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Publication No.
                                                                                                                                                         Matches
                                                                                                                                                                                      Query Match
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                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/10/168,843A CURRENT FILING DATE: 2002-09-24 NUMBER OF SEQ ID NOS: 33
                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Medical Research Council
APPLICANT: International Aids Vaccine Initiative
APPLICANT: University of Nairobi
TITLS OF INVENTION: Improvements in or Relating to
FILE REFERENCE: MJL/C1248'1/M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT FILING DATE:
                                                                                                                                                                                                                                     OTHER INFORMATION:
                                                                                                                                                                                                                                                                               LENGTH: 4350
TYPE: DNA
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OTHER INFORMATION: OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: DNA ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                   FEATURE:
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Local Similarity 100.0%;
nes 60; Conservative (
                                                                                                                                                                         Local
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                                                                                                                                                         60;
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                                                                                                                                                                         Similarity
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                                                                                                                                                         Conservative
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                                                                                                                                                                                                                                   Description of Artificial Sequence: Chimeric polynucleotide
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Pred. No. 1.9e-11;
                                                                                                                                                                       Score 60; DB 15;
Pred. No. 1.8e-11;
                                                                                                                                                          Mismatches
                                                                                                                                                                                       Length 4350;
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                                                                                                                                          US-10-387-336-4
                                                                                    Sequence 4, Application US/10387336 Publication No. US20030223964A1 GENERAL INFORMATION:
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LENGTH: 60
TYPE: DNA
ORGANISM: Artificial Sequence
PEATURE:
                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                      Best Local Similarity
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APPLICANT:
APPLICANT:
APPLICANT:
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TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION
TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES
FILE REFERENCE: 1621.002
CURRENT APPLICATION NUMBER: US/10/387,336
CURRENT FILING DATE: 2003-03-11
PRIOR APPLICATION NUMBER: US/09/475,515A
PRIOR PILING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 90
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                             APPLICANT: BARNETT, Susan
APPLICANT: ZUR MEGEDE, Jan
APPLICANT: SRIVASTAVA, Indresh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: BARNETT,
APPLICANT: ZUR MEG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
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TYPE: DNA
ORGANISM: Artificial Sequence
PEATURE:
PEATURE:
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OTHER INPORMATION: common region
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SRIVASTAVA, Indresh
LIAN, Ying
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SELBY, Mark
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LIU, Hong
HARTOG, Karin
              LIAN, Ying
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98.3%;
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                                                                                                                                                                                                                                                                                                      Score 58.4; DB 13
Pred. No. 6.8e-11;
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                                                                                                                                                                                                                                                                                                                         DB 13;
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                                                                                                                                                                                                                                                                                                                       Length 1268;
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RESULT 14 US-10-387-336-78

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; OTHER INFORMATION: Description of Artificial Sequence: synthetic;
; OTHER INFORMATION: HIV-Gag-protease
US-10-387-336-5
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SEQ ID NO 4
LENGTH: 1515
                                                                                                                                                                                                                                                                                 SEQ ID NO 5
LENGTH: 1853
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                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: WALKER, Christopher
TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION
TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES
FILE REFERENCE: 1621.002
CURRENT APPLICATION NUMBER: US/10/387,336
CURRENT FILING DATE: 2003-03-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
                                                                                  Matches
                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                               CURRENT FILING DATE: 2003-03-17

PRIOR APPLICATION NUMBER: US/09/475,515A
PRIOR FILING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 90
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: WALKER, Christopher
TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION
TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES
FILE REFERENCE: 1621.002
CURRENT EXPELICATION NUMBER: US/10/387,336
CURRENT FILING DATE: 2003-03-11
PRIOR APPLICATION NUMBER: US/09/475,515A
PRIOR FILING DATE: 1999-12-30
PRIOR FILING DATE: 1999-12-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
APPLICANT:
APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQ ID NOS: 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
                                                                                                                                                                                                                                       TYPE: DNA
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OTHER INFORMATION: Description of Artificial Sequence: synthetic OTHER INFORMATION: HIV-Gag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE:
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                                                                                                  Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  862 GACATCCGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTCGACCCGCTTCTACAAGACC 921
862 GACATCCGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTACAAGACC
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                                     1 GACATCCGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC
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SELBY,
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SELBY, Mark
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SRIVASTAVA, Indresh
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                                                                                  Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sugan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    97.3%;
98.3%;
                                                                                                97.3%; Score 58.4; DB 1: 98.3%; Pred. No. 6.7e-11
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Pred. No. 6.8e-11;
0; Mismatches 1
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Sequence 76, Application US/10387336 Publication No. US20030223964A1

APPLICANT: BARNETT, Susan APPLICANT: ZUR MEGEDE, J APPLICANT: SRIVASTAVA, II APPLICANT: LIAN, Ying

ZUR MEGEDE, Jan SRIVASTAVA, Indresh LIAN, Ying HARTOG, Karin

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CURRENT APPLICATION NUMBER: US/09/475,515A
PRIOR APPLICATION NUMBER: US/09/475,515A
PRIOR PRILING DATE: 90
SOPTWARE: 90
SOPTWARE: 90
SOPTWARE: Patentin Ver: 2.0
SEQ ID NO 79
LENGTH: 1865
TYPE: DNA
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APPLICANT: LIU, Hong
APPLICANT: GREER, Catherine
APPLICANT: SELBY, Mark
APPLICANT: WALKER, Christopher
ITILE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION
ITILE OF INVENTION: OP VIRUS-LIKE PARTICLES
FILE REFERENCE: 1621.002
CURRENT APPLICATION NUMBER: US/10/387,336
CURRENT APPLICATION NUMBER: US/10/387,336
CURRENT APPLICATION NUMBER: US/09/475,515A
PRIOR APPLICATION NUMBER: US/09/475,515A
PRIOR FILING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 90
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 78
LENGTH: 1865
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: GP1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 15
US-10-387-336-79
                                                                                       ; TYPE: DNA; ORGANISM: Artificial Sequence; PEATURE: ; PEATURE: ; OTHER INFORMATION: Description of Artificial Sequence: GP2 US-10-387-336-79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; OTHER INFORMATION: Description of Artificial Sequence: GP1 US-10-387-336-78 \cdot
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Query Match 97.3%; Score 58.4; DB 13; Length 1865; Best Local Similarity 98.3%; Pred. No. 6.7e-11; Matches 59; Conservative 0; Mismatches 1; Indels 0;
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868 GACATCCGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTACAAGACC
                               GACATCCGCCAGGGCCCCAAGGAGCCCTTCCGGCGACTACGTGGACGCTTCTTCAAGACC
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Search completed: May 28, 2004, 16:09:15 Job time : 30.7692 secs

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Title:
Perfect score:
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# SUMMARIES

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ACC78528	ACC78493	ACA03520	ACA03583	AAA70415	AAA70476	AAA70475	AAA70413	AAA70412	AAZ52051	AAA70417	AAA70426	AAD09490	AAD09489	AAD09488	AAD09487	ABL39958	ABL39954	AAL44549	AAL44553	AAA51626	AAA51610	AAA51608	ID
Acc78528 HIV TatRe	Acc78493 HIV GagTa	Aca03520 Synthetic	Aca03583 Synthetic	Aaa,70415 Synthetic	Aaa70476 HIV Gag-p	Aaa70475 HIV Gag-p	Aaa70413 HIV Gag-p	Aaa70412 Synthetic	Aaz52051 Codon opt	Aaa70417 HIV Gag c	Aaa70426 HIV p55 G	Aad09490 Human imm	Aad09489 Human imm	Aad09488 Human imm	Aad09487 Human imm	Abl39958 Synthetic		Aal44549 HIV-1 p55	HIV-1	VIH 5	Aaa51610 HIV synth	Aaa51608 HIV Gag m	Description

Packaging	Aaz52055	AAZ52055	w	8908	97.3	58.4	ŝ
Modified	Abk91605	ABK91605	σ	6438	97.3	58.4	44
HIV TatRe	Acc78529	ACC78529	7	5283	97.3	58.4	ω
Synthetic	Aca03584	ACA03584	7	5283	97.3	58.4	12
HIV GagCp		ACC78487	7	5274	97.3	58.4	=
Synthetic		ACA03518	7	5274	97.3	58.4	ö
HIV TatRe	Acc78530	ACC78530	7	4773	97.3	58.4	39
HIV GagP		ACC78491	7	4773	97.3	58.4	8
Synthetic	Aca03585	ACA03585	7	4773	97.3	58.4	7
Synthetic	Aca03519	ACA03519	7	4773	97.3	58.4	2
HIV bicis	Aaa70470	AAA70470	w	4766	97.3	58.4	5
HIV bicis	Aaa70471	AAA70471	w	4689	97.3	58.4	<u>~</u>
7	Aaa70473	AAA70473	w	4608	97.3	58.4	ພ
HIV bicis	Aaa70472	AAA70472	w	4472	97.3	58.4	ະ
_	Aaa70414	AAA70414	w	4319	97.3	58.4	μ
7	Acc78486	ACC78486	7	3999	97.3	58.4	ö
_	Acc78485	ACC78485	٦,	3999	97.3	58.4	9
_	Acc78484	ACC78484	7	3999	97.3	58.4	8
_	Acc78489	ACC78489	7	3564	97.3	58.4	3
_	Acc78488	ACC78488	J	3564		58.4	8
_	Acc78490	ACC78490	7	3496	97.3	58.4	Š
_	Acc78492	ACC78492	7	3205		58.4	24

# ALIGNMENTS

RESULT 1 AAA51608 Human immunodeficiency virus. AAA51608; 31-DEC-1998; 01-SEP-1999; 30-DEC-1999; 06-JUL-2000. WO200039304-A2. HIV Gag major homology region nucleotides 841-900. 31-OCT-2000 AAA51608 standard; DNA; 60 BP expression cassette, antigenic; type C; HIV; Env; synthetic; immunization; packaging cell line; antigen presentation; ss. (first entry) 98US-0114495P. 99US-0152195P. 99WO-US031273.

(CHIR ) CHIRON CORP.

Polynucleotide encoding antigenic type C HIV Gag polypeptide or a HIV Env polypeptide and the polypeptide useful for immunizing a mammal especially human against HIV.

WPI; 2000-452401/39. Barnett S. Zur Megede

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Claim 1; Page 92; 113pp; English.

Expression cassettes comprising a polynucleotide encoding antigenic type C human immunodeficiency virus (HIV) Gag or Env polypeptides are useful in DNA immunization, generation of packaging cell lines and production of Gag- and/or Env-containing proteins. Synthetic Env and Gag expression cassettes exhibit increased potency for induction of cytotoxic T-lymphocyte (CTL) responses by DNA immunization. Gag of HIV-1 self-assemble into non-infectious virus-like particles which are used as a matrix for the proper presentation of an antigen entrapped or associated to the immune system of the host

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RESULT 3
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                                                                                                                                                          Expression cassettes comprising a polynucleotide encoding antigenic type C human immunodeficiency virus (HIV) Gag or Env polypeptides are useful in DNA immunization, generation of packaging cell lines and production of Gag and/or Env-containing protesins. Synthetic Env and Gag expression cassettes exhibit increased potency for induction of cytotoxic T-lymphocyte (CTL) responses by DNA immunization. Gag of HIV-1 self-assemble into non-infectious virus-like particles which are used as a matrix for the proper presentation of an antigen entrapped or associated to the immune system of the host
                                                                                                                                      Sequence 1509 BP; 320 A; 556 C; 472 G; 161 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                           Claim 2; Page 93; 113pp; English.
                                                                                                                                                                                                                                                                                                                               polypucleotide encoding antigenic type C HIV Gag polypeptide or a HIV Env
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01-SEP-1999;
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illarity 100.0%;
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99US-0152195P.
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Pred. No. 5.7
0; Mismatches
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hes 0;
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                                                       HIV; ds; vaccine; gene; immune response; microparticle; adsorbent surface; poly(alpha-hydroxy acid); polyhydroxy butyric polycaprolactone; polycrhoester; polycyanoacrylate; detergent; submicron emulsion; viral infection; bacterial infection;
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01-SEP-1999;
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                                                                                                                                                              29-AUG-2003
08-NOV-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 1509 BP; 321 A; 559 C; 471 G; 158 T; 0 U; 0 Other;
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to the immune system of the host
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Polymucleotide encoding antigenic type C HIV Gag polypeptide or a HIV Env
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gag; expression cassette; antigenic; type C; HIV; Env; synthetic;
DNA immunization; packaging cell line; antigen presentation; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                31-OCT-2000
                                         parasitic infection; HIV-1 p55gag
                                                                                                                                                                                                         AAL44553;
                                                                                                                                                                                                                                     AAL44553 standard; DNA; 1509 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Barnett S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200039304-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human immunodeficiency virus; type C strain AF110967
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                                                                                                                                                                                                                                                                                                              841 GACATCCGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           against HIV.
                                                                                                                                                                                                                                                                                                                                        1 GACATCCGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC
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                                                                                                                                  polypeptide coding sequence 4.
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99US-0152195P.
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                                           polypeptide.
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Ulmer J,
                                                                                                         The invention relates to a method of raising an immune response in a host animal. The method of the invention comprises administering a microparticle that has an adsorbent surface to which a first biologically active macromolecule (e.g. a nucleic acid) has been adsorbed. The microparticle comprises a polymer microparticle of poly(alpha-hydroxy acid), a polyhydroxy butyric acid, a polycaprolactone, a polyorthoseter, a detergent, and submicron emulsion. The method/microparticle of the invention is useful for immunising a host animal against viral, bacterial or parasitic infections. The present DNA sequence encodes a HIV-1 p55gag polypeptide. (Updated on 29-AUG-2003 to standardise OS field)
                                                                                                                                                                                                                                                                      A microparticle to which a biologically active macromolecule is adsorbed, for use as a vaccine composition to treat viral, bacterial or parasitic infections, comprises a polymer microparticle, a detergent and a submicron emulsion.
                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                         28-SEP-2000; 2000US-0236105P.
30-AUG-2001; 2001US-0315905P.
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              GACATCCGCCAGGGCCCCAAGGAGCCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC
 GACATCCGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC
                                                                                        1509
                                                                                                                                                                                                                                                Fig 6; 100pp; English.
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                                          100.0%;
ilarity 100.0%;
Conservative 0
                                                                                     BP; 321 A; 559 C;
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replace(1158, C)
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RESULT 5

Synthetic Gag polynucleotide sequence SEQ ID

NO:4.

15-MAY-2002

(first entry)

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RESULT 6
ABL39954
ID ABL
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AC ABL
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Best Local (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                O'hagan D
Ulmer J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A microparticle to which a biologically active macromolecule is adsorbed, for use as a vaccine composition to treat viral, bacterial or parasitic infections, comprises a polymer microparticle, a detergent and a
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HIV; ds; vaccine; gene; immune response; microparticle; adsorbent surface; poly(alpha-hydroxy acid); polyhydrox butyric polycaprolactone; polycrhoester; polycyanoacrylate; detergent; submicron emulsion; viral infection; bacterial infection; parasitic infection; HIV-1 p55gag polypeptide.
                                                      ABL39954;
                                                                                ABL39954 standard; DNA; 1509
                                                                                                                                                                                                                                                              Sequence 1509
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 72;
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30-AUG-2001;
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08-NOV-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       emulsion.
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ubensky TW,
                                                                                                                                                                                                         Conservative
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2001US-0315905P
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                                                                                                                                                                                                                                                             BP; 320
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100.0%; Pred. No. 5.7e-09;
n. Mismatches 0;
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Best Local Similarity
Matches 60; Conserv
                                                                      Human immunodeficiency virus; type Synthetic.
                                                                                                               Human immunodeficiency virus type C; antigenic HIV type C protein; immunogenic; immunisation; gag; pol; vif; vpr; tat; rev; vpu; env; immunostimulant; gene therapy; gene; ds.
                                                                                                                                                                          Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          polymucleotide sequence encoding a polypeptide comprising immunogenic HIV type C polypeptides. The expression cassettes comprise any of the HIV type C sequences encoding Gag, Pol, Vif, Vpr, Tat, Rev, Vpu, Env or Nef (I). (I) have immunostimulant activity and can be used in gene therapy. The HIV type C polymucleotides are useful in applications including DNA immunisation, generation of packaging cell lines, and production of HIV Type C proteins. The polymucleotides are particularly useful in gene therapy and DNA immunisation applications. ABL39942 to ABL40054 and ABB06204 to ABB06215 represent sequences used in the exemplification of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New polymucleotides encoding antigenic HIV Type C polypeptides, useful applications including DNA immunization or generation of packaging cell lines, particularly in gene therapy.
                                             WO200204493-A2
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                                                                                                                                                                                                                                   ABL39958;
                                                                                                                                                                                                                                                              ABL39958 standard; DNA; 1509 BP
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(UYST-) UNIV STELLENBOSCH.
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                                                                                                                                                                          polynucleotide sequence SEQ ID NO:21.
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Pred. No.
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Best Local Similarity
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                                                                                                                                                                                                                                                                             Human
                                                                                                                                                                                                                                                                                                     Human immunodeficiency virus A; HIV A; immunogen; anti-HIV; vaccine; gene therapy; fusion protein; modified vaccinia virus Ankara vector; cytotoxic T-lymphocyte; CTL; epitope; ds.
                                                             23-DEC-1999; 99GB-00030294.
14-OCT-2000; 2000GB-00025234.
                                                                                                                                        05-JUL-2001.
                                                                                                                                                                                                                                                                                                                                                                     Human immunodeficiency virus A (HIV A)
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(MEDI-) MEDICAL RES COUNCIL.
(ITAI-) INT AIDS VACCINE INITIATIVE.
(UYNA-) UNIV NAIROBI.
                                                                                                          22-DEC-2000; 2000WO-GB004984
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(UYST-) UNIV STELLENBOSCH
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GACATCCGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                             standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Barnett SW,
                                                                                                                                                                                                                                 19. .1602
                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                   /product= "HIV A immunogen"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               1608
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 60; DB 6;
Pred. No. 5.7e-09;
); Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                     gene.
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2001-418221/44.

H

Mcmichael

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RESULT 9
AAD0948
110 AAD0
XX AAD0
XX AAD0
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XX Huma
XX H
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 'Best Local Similarity Matches 60; Conserv
23-DEC-1999; 99GB-00030294.
14-OCT-2000; 2000GB-00025234.
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                                                                                                       22-DEC-2000; 2000WO-GB004984
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gene therapy; fusion protein; modified vacytotoxic T-lymphocyte; CTL; epitope; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human immunodeficiency virus TA; HIV TA; immunogen; anti-HIV; vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human immunodeficiency virus TA (HIV TA) gene.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    immunodeficiency virus
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                                                                                                                                                                                                                                                                                                                                                                                 13. .1914
                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
                                                                                                                                                                                                                                                                                                             /product= "HIV TA immunogen"
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Matches Query Match

<del>,</del>09

Conservative

0

Mismatches

<u>,,</u>

<u>..</u>

Gaps

0

Length 1914;

Similarity

100.0%; Score 60; DB 4; 100.0%; Pred. No. 5.8e-09;

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CC their corresponding DNA molecules. An immunogen comprises a portion of CC gag protein of HIV from an HIV clade, parts of p17 and p24, modified to CC prevent N-terminal myristcylation; and a synthetic polypeptide comprising CC human cytotoxic T-lymphocyte (CTL) epitopes of HIV protein. This CC immunogen is designed to elicit an HIV-specific immune response in CC humans. The immunogen is useful in the preparation of a medicament such CC as vaccine to prevent or treat HIV infection in a human subject. The CC in a human subject which comprises administering one or more times an amount of nucleic acid molecule sufficient to prime an immune response to the immunogen, or else may be packaged within a delivery means, such as a CC modified vaccinia virus Ankara (MVA) to boost the immune response to CC common portion of the immunogens. The present DNA sequence encodes human CC immunodeficiency virus TA immunogen (HIV TA) fusion protein construct. CC CONSISTS of about 73% of gag protein fused to a string of 25 partially CC overlapping human CTL epitopes. The gag domain of HIV A immunogen CC includes the HIV-1 clade A tat sequence positioned between the gag CC pricein and synthetic human CTL epitopes.
                                    protein and synthetic human CTL epitopes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Novel immunogen for stimulating anti-HIV immune response, has a portion of gag protein of HIV from HIV clade, parts of p17, p24 and synthetic polypeptide comprising human cytotoxic T-lymphocyte epitopes of HIV
Sequence 1914 BP; 383 A; 728 C; 534 G; 269 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Example 2; Fig 6B; 65pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein.
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INT AIDS VACCINE INI
UNIV NAIROBI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mcmichael AJ;
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RASULT 10
AAD09489
ID AAD099
XX AAD09
XX AAD09
XX IO-SE
XX Human
XX Human
XX Gytot
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XX Gytot
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human immunodeficiency virus AeT; HIV AeT; immunogen; anti-HIV; vaccine; gene therapy; fusion protein; modified vaccinia virus Ankara vector; MVA cytotoxic T-lymphocyte; CTL; epitope; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                      Human immunodeficiency virus
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                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                    /product= "HIV AeT immunogen"
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WO200147955-A2.

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AADO9490
ID AADO9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CC their corresponding DNA molecules. An immunogen comprises a portion of CC gag protein of HIV from an HIV Clade, parts of p17 and p24, modified to CC prevent N-terminal myristoylation; and a synthetic polypeptide comprising CC human cytotoxic T-lymphocyte (CTL) epitopes of HIV protein. This CC immunogen is designed to elicit an HIV-specific immune response in CC immunogen is designed to elicit an HIV-specific immune response in CC invention also relates to method of stimulating anti-HIV immune response CC in a human subject which comprises administering anti-HIV immune response to CC in a human subject which comprises administering one or more times an CC modified vaccinia virus Ankara (MVA) to boost the immunogen, or else may be packaged within a delivery means, such as a CC modified vaccinia virus Ankara (MVA) to boost the immune response to CC immunodeficiency virus Arkara (MVA) to boost the immune cancodes human CC immunodeficiency virus Arkara (MVA) to boost the immune response to CC complete of about 73% of gag protein fused to a string of 25 partially coverlapping human CTL epitopes. The gag domain of HIV A contains p24 and CC veriapping human CTL epitopes. The gag domain of HIV A contains p24 and CC comprises the same design rationals with HIV A construct, but additionally includes the HIV-1 clade A tat sequence which is present on CC conditionally includes the HIV-1 clade A tat sequence which is present on CC conditionally includes the HIV-1 clade A tat sequence which is present on CC conditionally includes the HIV-1 clade A tat sequence which is present on the virus and sequence which is present on the sequence
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Best Local Similarity
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                                                                                                                                                                                                                                                                      AAD09490 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 2493 BP; 516 A; 887 C; 685 G; 405 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The invention relates to human immunodeficiency virus immunogens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example 2; Fig 7B; 65pp; English.
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14-OCT-2000;
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                                                                                                                                                                                                                                                                                                                                                                                            466 GACATCCGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC
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INT AIDS VACCINE INITIATIVE.
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2000GB-00025234.
                                                                                                                                                                                                                                                                      DNA; 4350 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           but expressed as a separate polypeptide, by virtue of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%; Score 60; DB 4; 100.0%; Pred. No. 5.9e-09;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 4;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 2493;
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Human immunodeficiency virus; PPA; immunogen; anti-HIV; vaccine; gene therapy; fusion protein; modified vaccinia virus Ankara vector; cytotoxic T-lymphocyte; CTL; epitope; ds.

15-SEP-2003

(revised)

AAA70426;

Gaps

525 60 0;

Human immunodeficiency virus

PPA immunogen.

10-SEP-2001 ААД09490;

(first entry)

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AAA70426
ID AAA7
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AC AAA7
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DT 15-S
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                                                                                                                                                                                                                                                                                                                 CC their corresponding DNA molecules. An immunogen comprises a portion of CC gag protein of HIV from an HIV clade, parts of p17 and p24, modified to CC prevent N-terminal myristoylation; and a synthetic polypeptide comprising CC immunogen is designed to elicit an HIV-specific immune response in CC immunogen is designed to elicit an HIV-specific immune response in CC immunogen is designed to elicit an HIV-specific immune response in CC in a human subject which comprises administering one or more times an CC in a human subject which comprises administering one or more times an CC amount of nucleic acid molecule sufficient to prime an immune response to the immunogen, or else may be packaged within a delivery means, such as a CC common portion of the immunogen. The present DNA sequence encodes human CC construct is based on HIV A immunogen fusion protein construct. PPA CC construct is based on HIV A immunogen. The HIV A immunogen consists of CC about 73% of gag protein fused to a string of 25 partially overlapping CC manned celling rationale with HIV A construct, but additionally includes the CC HIV-1 clade A tat sequence, C-pol protein, N-pol protein, rev and nef CC proteins
                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                               Best Local Similarity
                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Novel immunogen for stimulating anti-HIV immune response, has of gag protein of HIV from HIV clade, parts of p17, p24 and spolypeptide comprising human cytotoxic T-lymphocyte epitopes
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (MEDI-)
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14-OCT-2000; 2000GB-00025234
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                                                                                                                                                                                                                                                                           Sequence 4350 BP; 888 A; 1630 C; 1259 G; 573 T; 0 U; 0 Other;
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                                                               AAA70426 standard; DNA; 60
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           protein.
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                                                                                                                                               immunodeficiency virus.
                                                                                                                                                                                                              60;
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#### SUMMARIES

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## ALIGNMENTS

AUTHORS TITLE	REFERENCE	SOURCE ORGANISM	VERSION KEYWORDS	ACCESSION	RESULT 1 AX455886 LOCUS
zur Megede, J., Barnett, S.W., Engelbrecht, S. and van Rensburg, E. Polynucleotides encoding antigenic hiv type c polypeptides, polypeptides and uses thereof	Viruses; Retroid viruses; Retroviridae; Lentivirus; Primate lentivirus group. 1	Human immunodeficiency virus Human immunodeficiency virus	AX455886.1 GI:21714879	Sequence 2 from Patent WO0204493. AX455886	AX455886 60 bp DNA linear PAT 06-JUL-2002

Pred. No. is the number of results predicted by chance to have a

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CHIRON Patent:

of Stellenbosch

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                                                                                                                                                                   O'Hagan, D., Otten, G., Donnelly, J. J., Polo, J.M., Singh, M., Ulmer, J. and Dubensky, T.W. Microparticles for delivery of the heterologous Patent: MO 0226209-A 68 04-APR-2002;
                                                                                                                                                                                                                                                                 Human immunodeficiency virus 1 (HIV-1)
Human immunodeficiency virus 1
Viruses; Retroid viruses; Retroviridae; Lentivirus; Primate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 GACATCCGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC
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Microparticles for delivery of the heterologous nucleic acids Patent: WO 0226209-A 64 04-APR-2002;
CHIRON CORPORATION (US)
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Human immunodeficiency virus 1
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Sequence 68 from Patent
AX468548
AX468548.1 GI:21901378
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                                                                                                                                                        CHIRON CORPORATION (US)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Human immunodeficiency virus
/mol type="unassigned DNA"
/db_xref="taxon:11676"
                                                                        /organism="Human immunodeficiency
/mol_type="unassigned DNA"
/db_xref="taxon:11676"
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                                                                                                                                    Location/Qualifiers
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100.0%; Pred. No. 5.6e-07;
100.0%; Score 60; DB 6;
100.0%; Pred. No. 5.6e-07;
live 0; Mismatches 0;
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Pred. No. 5.6e-07;
Mismatches 0;
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                                DB 6;
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                             Length 1509;
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Conservative

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RESULT 8
AX188562
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AX188560
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AX188558
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                                                       60;
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MEDICAL RESEARCH COUNCIL (GB); International Aids Vaccine Initiative (US); University of Nairobi (KE)
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 29 from Patent AX188560
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MEDICAL RESEARCH COUNCIL (GB) International Aids Vaccine Initiative (US); University of Nairobi (KE)
Location/Qualifiers
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                                                                                                               100.0%; llarity 100.0%; Conservative 0
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                                                                                                                                                                                                  /organism="synthetic construct"
/mol_type="unassigned DNA"
/db_xref="taxon:32630"
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/mol_type="unassigned DNA"
/db_xref="taxon:32630"
                                                                                                                                                                                   'noTe="Chimeric polynucleotide"
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                                                                                                               Score 60; DB 6; 1
Pred. No. 5.4e-07;
; Mismatches 0;
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WO0147955.
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BD263651
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KEYWORDS
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AX188564
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Local Similarity 100.0%; Pred. No. 5.1e-07;
hes 60; Conservative 0; Mismatches 0;
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BD263651.1 GI:33073419
JP 2002533124-A/18.
synthetic construct
                                                         Improved expression of virus-like particles.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Improvements in or relating to immune responses to Patent: WO 0147955-A 33 05-JUL-2001;
MEDICAL RESEARCH COUNCIL (GB): International Aids Initiative (US); University of Nairobi (KE)
Location/Qualifiers
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Sequence 33 from Patent WO0147955
AX188564
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Similarity 100.0%;
60; Conservative 0;
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/mol_type="unassigned DNA"
/db_xref="taxon:32630"
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/mol_type="unassigned DNA"
/db_xref="taxon:32630"
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                                                                           of HIV
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Pred. No. 4.7e-07;
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AR373334
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PH Key
PT source
PT
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particles
Patent: US 6602705-A 20 05-AUG-2003;
Location/Qualifiers
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Sequence 20 from patent US 6602705.
AR373334
                                                                ; 65
                                                                                                                                                                                                                                        1 (bases 1 to 60)
Barnett, S.W., Megede, J., Greer, C. and Selby, M.
Expression of HIV polypeptides and production of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     artificial sequences.

1 (bases 1 to 60)

Barnett,S., Megede,J.Z., Srivastava,I., Lian,Y., Hartog,K.,
Greer,C., Selby,M. and Walker,C.
Improved expression of HIV polypeptides and production of
                                                                                                                                                                                                                                                                                                             Unknown
                                                                                                                                                                                                                                                                                                                            Unknown.
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PI HONG LIU, CATHERINE GREER, MARK SELBY, CHRISTOPHER WALKER PC C12N15,09,A61K31/711,A61K38/00,A61K48/00,A61P31/18,A61P37/02,
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SUSAN BARNETT,JAN ZUR MEGEDE,INDRESH SRIVASTAVA,YING LIAN, PI
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Patent: JP 2002533124-A 18 08-OCT-2002;
                                                                                                                                                                                                                                                                                            Unclassified.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PC C12N7/00,C12P21/02,C12N15/00,C12N5/00,A61K37/02 CC Description of Artificial Sequence: synthetic p55 Gag CC
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                                                                               Similarity
                    GACATCCGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC 60
GACATCCGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTACAAGACC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GACATCOGCCAGGGCCCCAAGGACCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC
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JP 2002533124-A/18
08-OCT-2002
                                                                Conservative
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31-DEC-1998 US 60/1144
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                                                                                                                                          /organism="unknown"
/mol_type="genomic DNA"
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/mol_type="genomic DNA"
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/db_xref="taxon:32630"
                                                                             97.3%;
98.3%;
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98.3%;
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                                                                             Score 58.4; DB 6;
Pred. No. 2.7e-06;
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Pred. No. 2.7e-06;
                                                                Mismatches
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                                                                                             Length 60;
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           Query Match
Best Local Similarity
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                                                                                                  particles
particles
Location/Qualifiers
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                                                                                                                                                                                                                                                                                                          AR373325 1268 bp
Sequence 9 from patent US 6602705.
AR373325
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                                                                                                                                                                                                                                                Unknown
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Improved expression of HIV polypeptides and production virus-like particles.
                                                                                                                                                                        1 (bases 1 to 1268)
Barnett, S.W., Megede, J., Greer, C. and Selby, M.
Expression of HIV polypeptides and production
                                                                                                                                                                                                                            Unclassified.
                                                                                                                                                                                                                                                              Unknown.
                                                                                                                                                                                                                                                                                            AR373325.1
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PI HONG LIU,CATHERINE GREER,MARK SELBY,CHRISTOPHER WALKER PC
C12N15/09,A61K31/711,A61K38/00,A61K48/00,A61P31/18,A61P37/02, I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OS Artificial Sequence
PN JP 2002533124-A/9
PD 08-OCT-200 JP
PD 08-OCT-209 JP 2000591193
PF 30-DEC-1999 US 60/114495,01-DEC-1999 US 60/168471 PI
PR 31-DEC-1998 US 60/114495, INDRESH SRIVASTAVA, YING LIAN, PI
SUSAN BARNETT, JAN ZUR MEGEDE, INDRESH SRIVASTAVA, YING LIAN, PI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      virus-like particles
Patent: JP 2002533124-A 9 08-OCT-2002;
CHIRON CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Barnett, S., Megede, J.Z., Srivastava, I., Lian, Y., Hartog
Greer, C., Selby, M. and Walker, C.
Improved expression of HIV polypeptides and production
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1 (bases 1 to 1268)
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Similarity 98.3%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="synthetic construct"
/mol_type="genomic DNA"
/db_xref="taxon:32630"
                                                                              /mol_type="genomic DNA"
                                                                                               organism="unknown"
               97.3%;
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Pred. No. 1.6e-06;
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Score 58.4; DB 6;
Pred. No. 1.6e-06;
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                                DB 6;
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                                                                                                            BD263637
BD263637.1 GI:33073405
JP 2002533124-A/4
                                                                                                                                                                                                                                                                                                                                                                                     1 GACATCCGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC 60
artificial sequences.
1 (bases 1 to 1515)
Barnett, S., Megede, J.Z.,
                                                                                                                                                                               BD263637
Improved expression of HIV polypeptides and production of virus-like particles.
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1 (bases 1 to 1509)

zur Megede, J., Chan, M.C., Doe, B., Schaefer, M., Greer, C.E.,

Selby, M., Otten, G.R. and Barnett, S.W.

Selby, M., Otten, G.R. and immunogenicity of sequence-modified human immunodeficiency virus type 1 gag gene

j. virol. 74 (6), 2628-2635 (2000)
                                                                       synthetic construct
synthetic construct
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Submitted (04-NOV-1999) Vaccines, Chiron Corporation, 4560 Horton,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          zur Megede,J. and Barnett,S.W.
Direct Submission
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                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /product="gag protein"
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/byrotein id="AAP43628.1"
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veekafspeyipmfsalsegarpodlayTwlntygghqaawomlerilygkhwbocki
pvhagpiapeggsprasyldrffyzhlasqasgbyunpatiwagrogrevy
kichigpaatilebwfiacqgrogogghkaryllaswsquymymtfickiwpsykgreqny
kichigpaatilebwfiacqgogogghkaryllaswsquymymtfickipsykgreqny
kichigpaatilebwfiacqgrogogfkaryllaswsquymymtfickipsykgreqny
kichigpaatilebwfiacqgrogogfkaryllaswsquymymtfickipsykgreqny
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db_xref="taxon:32630"
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98.3%;
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         Srivastava, I., Lian, Y., Hartog, K., Liu, H.,
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                                                             Query Match
Best Local S
Matches 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
                                                                                                                                                                                               source
 862 GACATCOGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTACAAGACC 921
                                                                                                                                                                                                                                                                                                                                                                                                           Patent: JP 2
CHIRON CORP
OS Artific
PN JP 2002
PD 08-OCT-
PF 30-DEC-
                 59;
                                                                                                                                                                                                                                                                                                                                                         PD 08-OCT-2002

PP 30-DEC-1999 JP 2000591193

PR 31-DEC-1998 US 60/114495,01-DEC-1999 US 60/168471

SUSAN BARNETT, JAN ZUR MEGEDE, INDRESH SRIVASTAVA, YING LIAN, PI

KARIN HARTOG,
                                                                                                                                                                                                                                                           PC C12N7/00,C12P21/02,C12N15/00,C12N5/00,A61K37/02 CC
Description of Artificial Sequence: synthetic HIV-Gag FI
Location/Qualifiers
                                                                                                                                                                                                                              ĘĘ
                                                                                                                                                                                                                                                                                                             PI HONG LIU, CATHERINE GREER, MARK SELBY, CHRISTOPHER WALKER PC C12N15/09, A61K31/711, A61K38/00, A61K48/00, A61P31/18, A61P37/02, 1C12N5/10,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             virus-like particles
Patent: JP 2002533124-A 4 08-OCT-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Greer, C., Selby, M. and Walker, C. Improved expression of HIV polypeptides and
                                                                              Similarity
                                                           97.3%;
nilarity 98.3%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                           Artificial Sequence
JP 2002533124-A/4
                                                                                                                                                                                                                                             source
                                                                                                                                                                                       /organism='Artificial Sequence'
Location/Qualifiers
1. .1515
                                                                                                                                            organism="Bynthetic construct"
|mol_type="genomic DNA"
|db_xref="taxon:32630"
                                                           Score 58.4; DI
Pred. No. 1.6e
0; Mismatches
                                                               0
                                                                                1.6e-06;
                                                                                              DB 6;
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                                                                                            Length 1515;
                                                                 Indels
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                                                               Gaps
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Search completed: May 28, 2004, 13:23:16 Job time : 247.567 secs

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Result
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Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Total number of hits satisfying chosen parameters:
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re greater than or equal to the score of the result being printed,
is derived by analysis of the total score distribution.
     nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                         Published Applications NA:*

1: /cgn2_6/ptodata/1/pubpna/US07_PUBCOMB.seq:*

2: /cgn2_6/ptodata/1/pubpna/US06_NEW_PUB.seq:*

3: /cgn2_6/ptodata/1/pubpna/US06_NEW_PUB.seq:*

4: /cgn2_6/ptodata/1/pubpna/US06_PUBCOMB.seq:*

5: /cgn2_6/ptodata/1/pubpna/US08_NEW_PUB.seq:*

6: /cgn2_6/ptodata/1/pubpna/US08_NEW_PUB.seq:*

7: /cgn2_6/ptodata/1/pubpna/US08_PUBCOMB.seq:*

9: /cgn2_6/ptodata/1/pubpna/US09_PUBCOMB.seq:*

9: /cgn2_6/ptodata/1/pubpna/US09_PUBCOMB.seq:*

10: /cgn2_6/ptodata/1/pubpna/US09_PUBCOMB.seq:*

11: /cgn2_6/ptodata/1/pubpna/US09_PUBCOMB.seq:*

12: /cgn2_6/ptodata/1/pubpna/US09_PUBCOMB.seq:*

13: /cgn2_6/ptodata/1/pubpna/US09_PUBCOMB.seq:*

14: /cgn2_6/ptodata/1/pubpna/US09_PUBCOMB.seq:*

15: /cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*

16: /cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*

17: /cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*

18: /cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*

19: /cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*

19: /cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*

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19: /cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*
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Gapop 10.0 , Gapext 1.0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             May 28, 2004, 11:33:50; Search time 30.7692 Seconds
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
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US-09-899-575-3
US-09-899-575-20
US-09-899-575-51
US-10-190-435-57
US-10-190-435-15
US-10-190-305A-81
US-10-190-435-16
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                                                                                                                                                                                                                                                                                                                SUMMARIES
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8870.358 Million cell updates/sec
                                                                                                                                                                                                                                                            Description
Sequence 1, Appli
Sequence 63, Appl
Sequence 67, Appl
Sequence 20, Appli
Sequence 20, Appli
Sequence 99, Appli
Sequence 91, Appli
Sequence 51, Appli
Sequence 57, Appli
Sequence 15, Appli
Sequence 15, Appli
Sequence 15, Appli
Sequence 16, Appli
Sequence 18, Appli
Sequence 18, Appli
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45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15
55.2	58.4	58.4	58.4	58.4	58.4	58.4	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
92.0	97.3	•	•			97.3	•	100.0		100.0	100.0	•	•	100.0	•	100.0	100.0	100.0	100.0	100.0		100.0	100.0	100.0	•		•	100.0	100.0	100.0
60	3021	3021	3021	3020	1092	1092	9788	9785	9169	9166	5184	5184	5145	5145	4716	4716	4713	4713	4702	4615	4606	4483	4419	4419	3930	3930	3930	3537	3537	3531
13	15	15	15	15	15	15	13	13	13	13	15	15	15	15	<b>1</b> 5	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
US-09-899-575-2	- 1	US-10-138-098-23	US-10-138-098-22	-138-098	US-10-138-098-13	0-138-098-	-120-		0-359-120-	0-359-	US-10-190-305A-82	US-10-190-435-58	US-10-190-305A-12	US-10-190-435-12	US-10-190-305A-13	US-10-190-435-17	US-10-190-305A-83	US-10-190-435-59	US-10-190-435-38	US-10-190-435-36	US-10-190-435-34	US-10-190-435-35	US-10-190-305A-14		US-10-190-435-11	US-10-190-435-10	-10-190-435-	-10-	-10-190-435-	US-10-190-435-13
Sequence 2, Appli	e 24	e 23	22	Sequence 21, Appl	13,	æ	174,	176,	e 169,	168,	82,	58,	12,	12,	13,	17,	83,	59,	38,	36,	34,	35,	Sequence 14, Appl	e 19,	e 11,	e 10,	٥	15,		Sequence 13, Appl

## ALIGNMENTS

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RESULT 1

US.09.899-575-1

; Sequence 1, Application US/09899575
; Publication No. US2003023961A1
; GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Egnelbrecht, Susan W.
APPLICANT: Van Rensburg, Estrelita Janse
TTITLE OF INVENTION: POLYMCIECTIOBS ENCODING ANTIGENIC HIV TYPE C
TITLE OF INVENTION: POLYMCIECTIOBS ENCODING ANTIGENIC HIV TYPE C
TITLE OF INVENTION: POLYMCIECTIOBS ENCODING ANTIGENIC HIV TYPE C
TITLE OF INVENTION: POLYMCIECTIOBS ENCODING ANTIGENIC HIV TYPE C
TITLE OF INVENTION: POLYMCIECTIOBS ENCODING ANTIGENIC HIV TYPE C
TITLE OF INVENTION: POLYMCIECTIOBS ENCODING ANTIGENIC HIV TYPE C
TITLE OF INVENTION: POLYMCIECTIOES, POLYPETIDES AND USES THEREOF
FILE OF INVENTION: POLYMERE: 09/475,704

PRIOR APPLICATION UNMBER: 09/475,704

PRIOR APPLICATION UNMBER: 09/475,704

PRIOR APPLICATION UNMBER: 09/475,704

PRIOR APPLICATION HUMBER: 09/475,704

PRIOR APPLICATION HUMBER: 09/475,704

PRIOR APPLICANTION HUMBER: 09/475,704

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RESULT 4
US-09-967-464-67
; Sequence 67, A
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OTHER INFORMATION: Description of Artificial Sequence: HIV Type C Gag; OTHER INFORMATION: Major Homology Region Optimized US-09-899-575-53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-967-464-63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 63, Application US/09967464 Publication No. US20030138453A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                            SBQ ID NO 63
LENGTH: 1479
TYPB: DNA
ORGANISM: Human immunodeficiency virus type 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Egnelbrecht, Susan
APPLICANT: Van Rensburg, Estrelita Janse
TITLE OF INVENTION: POLYNUCLECTIDES ENCODING ANTIGENIC HIV TYPE C
TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF
FILE REFERENCE: PPO1631.102
CURRENT FILING DATE: 2001-07-05
PRIOR APPLICATION NUMBER: US/09/899,575
PRIOR APPLICATION NUMBER: 09/475,704
PRIOR FILING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SENERAL INFORMATION:
APPLICANT: Zur Mege
APPLICANT: Barnett
                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION NUMBER: US/09/967,464
CURRENT FILING DATE: 2002-04-11
PRIOR APPLICATION NUMBER: 60/236,105
PRIOR FILING DATE: 2000-09-28
PRIOR APPLICATION NUMBER: 60/315,905
PRIOR FILING DATE: 2001-08-30
NUMBER OF SEQ ID NOS: 68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Singh, Mamohan
APPLICANT: Ulmer, Jeffrey
APPLICANT: Dubensky, Jr., Thomas W.
APPLICANT: Dubensky, Jr., Thomas W.
TITLE OF INVENTION: MICROPARTICLES FOR DELIVERY OF HETEROLOGOUS NUCLEIC ACIDS
FILE REFERENCE: PP16269.004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: O'Hagan, Derek
APPLICANT: Otten, Gillis
APPLICANT: Donnelly, John J.
APPLICANT: Polo, John M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: PatentIn Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: PatentIn version 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 60
TYPE: DNA
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
                                                                                                                         844 GÁCATCAAGCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC
                                                                                                                                                                                                                 60;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ch 100.0%; Score 60; DB 13; Similarity 100.0%; Pred. No. 2.5e-12; 60; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 GACATCAAGCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC
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Barnett, Susan
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    Application US/09967464
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                                                                                                                                                                                                            Conservative
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                                                                                                                                                                                                                                    100.0%; Score 60; DB 10; 100.0%; Pred. No. 2.6e-12;
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                                                                                                                                                                                                                   Mismatches
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                                                                                         Matches
                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                    SEQ ID NO 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 3, Application US/09899575
Publication No. US20030223961A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                    CURRENT FILING DATE: 2001-07-05
PRIOR APPLICATION NUMBER: 09/475,704
PRIOR FILING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 135
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Zur Megede, Jan
APPLICANT: Barnett, Susan W.
APPLICANT: Egnelbrecht, Susan
APPLICANT: Egnelbrecht, Susan
APPLICANT: Wan Rensburg, Estrelita Janse
TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C
TITLE OF INVENTION: POLYPETIDES, POLYPETIDES AND USES THEREOF
FILE REFERENCE: PP01631-102
CURRENT APPLICATION NUMBER: US/09/899,575
CURRENT FILING DATE: 2001-07-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Dubensky, Jr., Thomas W.
APPLICANT: Dubensky, Jr., Thomas W.
TITLE OF INVENTION: MICROPARTICLES FOR DELIVERY OF HETEROLOGOUS NUCLEIC ACIDS FILE REFERENCE: PP16269.004
CURRENT APPLICATION NUMBER: US/09/967,464
CURRENT FILING DATE: 2002-04-11
PRIOR APPLICATION NUMBER: 60/236,105
PRIOR PILING DATE: 2000-0-28
PRIOR PILING DATE: 2001-08-30
PRIOR PILING DATE: 2001-08-30
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APPLICANT: Otten, Gillis
APPLICANT: Donnelly, John J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQ ID NOS: 68
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                                                                                                                                                                                                FEATURE: OTHER INFORMATION: Description of Artificial Sequence: synthetic Gag OTHER INFORMATION: of HIV strain AF110965
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA ORGANISM: Human immunodeficiency virus type 1
                                                                                                                                                                                                                                                                  TYPE: DNA ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                 LENGTH: 1479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 1479
                                                                                                            Local
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                                1 GACATCAAGCAGGGCCCCAAGGAGCCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC 60
                                                                                                            Similarity
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Ulmer, Jeffrey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Barnett, Susan
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                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 60; DB 10; 100.0%; Pred. No. 2.6e-12;
                                                                                      100.0%; Score 60; DB 13;
100.0%; Pred. No. 2.6e-12;
tive 0; Mismatches 0;
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RESULT 6 US-09-899-575-20

Sequence 20, Application US/09899575 Publication No. US20030223961A1

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APPLICANT: Barnett, Susan W.

APPLICANT: Egnelbrecht, Susan W.

APPLICANT: van Rensburg, Estrelita Janse
TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C
TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF
FILE REFERENCE: PPO1631.102
CURRENT APPLICATION NUMBER: US/09/899,575
CURRENT PILING DATE: 2001-07-05
PRIOR APPLICATION NUMBER: 09/475,704
PRIOR APPLICATION NUMBER: 09/475,704
PRIOR PILING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 135
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 20
US-09-899-575-51
; Sequence 51, Application US/09899575
; Publication No. US20030223961A1
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                                                               RESULT 8
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CURRENT FILING DATE: 2001-07-05
PRIOR APPLICATION NUMBER: 09/475,704
PRIOR FILING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 135
SOPTWARE: Patentin Ver. 2.0
SEQ ID NO 99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 99, Application US/09899575 Publication No. US20030223961A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                Query Match
Best Local (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: van Rensburg, Estrelita Janse
TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C
TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USBS THEREOF
FILE REFERENCE: PP01631.102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Zur Megede, Jan
APPLICANT: Barnett, Susan
APPLICANT: Egnelbrecht, St
APPLICANT: van Rensburg, I
                                                                                                                                                                                                                                                                                                                                                  LENGTH: 1491
TYPE: DNA
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                   OTHER INFORMATION: Description of Artificial Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OTHER INFORMATION: Description of Artificial Sequence: synthetic Gag
OTHER INFORMATION: coding sequence of HIV strain AF110965
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM: Artificial Sequence
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                                                                                                                                                   GACATCAAGCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC
                                                                                                                               GACATCAAGCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC
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Egnelbrecht, Susan
                                                                                                                                                                                                            100.0%;
ilarity 100.0%;
Conservative C
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                                                                                                                                                                                                              0
                                                                                                                                                                                                                              Score 60; DB 13;
Pred. No. 2.6e-12;
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                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: POLYMUCLECTIDES ENCODING ANTIGENIC HIV TYPE C TITLE OF INVENTION: POLYMUCLECTIDES, POLYPETIDES, POLYPETIDES AND USES THEREOF FILE REFERENCE: PP18133.003 / 2302-18133
CURRENT APPLICATION NUMBER: US/10/190,435
CURRENT FILING DATE: 2002-12-30
NUMBER OF SEQ ID NOS: 319
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 20, Application US/10190435
Publication No. US20030143248A1
GENERAL INFORMATION:
                                                                                         Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                SEQ ID NO 20
LENGTH: 2742
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LENGTH: 1494
                                                                               Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Egnelbrecht, Susan
APPLICANT: van Rensburg, Estrelita Janse
TITLE OP INVENTION: POLYMUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C
TITLE OP INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF
FILE REFERENCE: PP01631.102
CURRENT APPLICATION NUMBER: US/09/899,575
CURRENT FILING DATE: 2001-07-05
FRIOR APPLICATION NUMBER: 09/475,704
PRIOR FILING DATE: 1999-12-310
NUMBER OF SEQ ID NOS: 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: ZUR MEGEDE, Jan
APPLICANT: BARNETT, Susan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Zur Megede, Jan
APPLICANT: Barnett, Susan W.
APPLICANT: Egnelbrecht, Susan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OTHER INFORMATION:
OTHER INFORMATION:
                                                                                                                                                              FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: GagTatRevNef_C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: DNA ORGANISM: Artificial Sequence
                                                                                                                                                                                                                          ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                               TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE:
850 GACATCAAGCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    841 GACATCAAGCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC 900
                                                                               60;
                     1 GACATCAAGCAGGGCCCCAAGGAGCCCTTCCGGGACTACGTGGACCGCTTCTTCAAGACC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     60;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LIAN, Ying
ENGELBRECHT, Susan
                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Description of Artificial Sequence: HIV Type Gag optimized
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Susan W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 60; DB 13; 100.0%; Pred. No. 2.6e-12;
                                                                                                  100.0%;
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                                                                                                  Score 60; DB 15;
Pred. No. 2.7e-12
                                                                             Mismatches
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  TCAAGACC 909
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RESULT 10
US-10-190-435-57
; Sequence 57, Application US/10190435
; Publication No. US2003014324BA1
; GENERAL INFORMATION:
; APPLICANT: ZUR MEGEDE, Jan
; APPLICANT: BARNETT, Susan W.

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US-10-190-305A-15
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                                                                                                                                                                                                                                                                                                                                     RESULT 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQ ID NO 57
LENGTH: 2742
TYPB: DNA
Sequence 81, Application US/10190305A

Publication No. US20030198621A1

GENERAL INFORMATION:

APPLICANT: ZUR MEGEDE, Jan
APPLICANT: LIAN, Ying
APPLICANT: LIAN, Ying
TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE
TITLE OF INVENTION: TYPE C POLYPEPTIDES, POLYPEPTIDES AND USES
TITLE REFERENCE: 2302-18702 / 18702.002

CURRENT APPLICATION UMBER: US/10/190,305A

CURRENT FILING DATE: 2002-07-05

NUMBER OF SEQ ID NOS: 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 15, Application US/10190305A Publication No. US20030198621A1 GENERAL INFORMATION:
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TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C
TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF
FILE REFERENCE: PP1131.003 / 2302-18133
CURRENT APPLICATION NUMBER: US/10/190,435
CURRENT PILING DATE: 2002-12-30
NUMBER OF SEQ ID NOS: 319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: ZUR MEGEDE, Jan
APPLICANT: BARNETT, SUBBAN
APPLICANT: LIAN, YİNG
APPLICANT: LIAN, YİNG
TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE B AND/OR
TITLE OF INVENTION: TYPE C POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF
FILE REFERENCE: 2302-18702 / 18702-002
CURRENT APPLICATION NUMBER: US/10/190,305A
CURRENT FILING DATE: 2002-07-05
NUMBER OF SEQ ID NOS: 93
CONTENDED: SEQ ID NOS: 93
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APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOPTWARE: PatentIn Ver. 2.0
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TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2104 GACATCAAGCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC 2163
                                                                                                                                                                                                                                                                                                                                                                                                              850 GACATCAAGCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC 909
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 60; DB 15; 100.0%; Pred. No. 2.7e-12;
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SEQ ID NO 16
LENGTH: 3462
TYPE: DNA
ORGANISM: Artificial Sequence

GENERAL INFORMATION:

APPLICANT: ZUR MEGEDE, Jan
APPLICANT: BARNETT, SUSAN W.
APPLICANT: LIAN, Ying
APPLICANT: ENGELERECHT, Susan
APPLICANT: ENGELERECHT, Susan
APPLICANT: VAN RENSBURG, Estrelita J.
APPLICANT: VAN RENSBURG, Estrelita J.
APPLICANT: POLYMUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C
TITLE OF INVENTION: POLYMUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C
TITLE OF INVENTION: POLYMUCLEOTIDES, POLYPEPTIDES AND USES THEREOF
FILE REPERENCE: PP18133.003 / 2302-18133
CURRENT FILING DATE: 2002-12-30
NUMBER OF SEQ ID NOS: 319
SOFTMARE: Patentin Ver. 2.0

Sequence 16, Application US/10190435 Publication No. US20030143248A1

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                                                                                                                                                                           ; OTHER INFORMATION: Description of Artificial Sequence: GagRTmut_C
US-10-190-435-18
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SEQ ID NO 81
LENGTH: 2742
                                                                                                         Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                       SEQ ID NO 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
APPLICANT: ZUR MEGEDE, Jan
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                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Publication No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 18, Application US/10190435 Publication No. US20030143248A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                           APPLICANT: BARNETT, SUSAN W.
APPLICANT: LIAN, Ying
APPLICANT: LIAN, YING
APPLICANT: ENGELBRECHT, SUSAN
APPLICANT: VAN RENSBURG, ESTRELITA J.
APPLICANT: VAN RENSBURG, ESTRELITA J.
APPLICANT: VAN RENSBURG, ESTRELITA J.
APPLICANT: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C
TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF
FILE REFERENCE: PP18133.003 / 2302-18133
CURRENT APPLICATION NUMBER: US/10/190,435
CURRENT FILING DATE: 2002-12-30
NUMBER OF SEQ ID NOS: 319
                                                                                                                                                                                                                                                                                                                           SOPTWARE: PatentIn Ver. 2.0
                                                                                                                                                                                                                 ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                         LENGTH: 3162
TYPE: DNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OTHER INFORMATION: Description of Artificial Sequence: TatRevNefGag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE:
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850 GACATCAAGCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC
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                                                                                     Conservative
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                                                                                                         100.0%; Score 60; DB 15; 100.0%; Pred. No. 2.7e-12;
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US-10-190-435-13

(US-10-190-435-13)

(Sequence 13, Application US/10190435

(Publication No. US20030143248A1)

(Publicant: ZUR MEGEDE, Jan

(Publicant: ZUR MEGEDE, Jan

(Publicant: Van RENSUNG, Setrelita J.

(Publicant: Van RENSUNG, Setrelita J.

(Publicant: Van RENSUNG, Setrelita J.

(Publicant: Van RENSUNG, SETRELIDES SECODING ANTIGENIC HIV TYPE C.

(Publicant: Van RENSUNG, Setrelita J.

(Publicant: Van RENSUNG, Setre
Search completed: May 28, 2004, 16:09:15 Job time: 31.7692 secs
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                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 100.0%; Score 60; DB 15; Length 3531; Best Local Similarity 100.0%; Pred. No. 2.7e-12; Matches 60; Conservative 0; Mismatches 0; Indels 0
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 200000000
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Copyright (c) 1993 - 2004 Compugen Ltd.
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Pred. No. is the number of results predicted by chance to have a

score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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Result No.	Score	Query Match	Length	BB	ID	escription
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					ALIGNMENTS	

LOCUS DEFINITION DEFINITION ACCESSION VERSION VERSION SOURCE ORGANISM REFERENCE AUTHORS TITLE	RESULT 1 AX455885
AX455885 Sequence 1 from Patent MO0204493. AX455885 AX455885 AX455885 AX455885.1 GI:21714878 Human immunodeficiency virus Human immu	

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RESULT 3
AX455887
LOCUS
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CHIRON (
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                                                                         zur Megede, J., Barnett, S.W., Engelbrecht, S. and van Rensburg, B. Polynucleotides encoding antigenic hiv type c polypeptides, polypeptides and uses thereof Patent: WO 0204493-A 3 17-JAN-2002; CHIRON CORPORATION (US); University of Stellenbosch (ZA) Location/Qualifiers
                                                                                                                                                                                                                                                         AX455887 1479 bp
Sequence 3 from Patent WOO204493.
AX455887 AX455887.1 GI:21714880
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synthetic construct
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AX455937
                                                                                                                                                                                           artificial
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llarity 100.0%;
Conservative (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 : WO 0204493-A 1 17-JAN-2002;
CORPORATION (US); University
               /organism="synthetic construct"
/mol_type="unassigned DNA"
/db_xref="taxon:32630"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /organism="synthetic construct"
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/mol_type="unassigned DNA"
/db xref="HIV Type C Gag Major Homology Region Optimized"
/noTe="HIV Type C Gag Major Homology Region Optimized"
                                                            į. .1479
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/mol_type="unassigned DNA"
/db_xref="taxon:12721"
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'note="synthetic Gag of HIV strain AF110965"
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Pred. No. 2.8e-07;
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AX455904
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Best Local S
Matches 60
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Matches 60; Conserv
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Sequence 63
AX468543
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Sequence 20
AX455904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   zur Megede, J., Barnett, S.W., Engelbrecht, S. Polynucleotides encoding antigenic hiv type polypeptides and uses thereof Patent: WO 0204493-A 20 17-JAN-2002; CHIRON CORPORATION (US); University of Stel Location/Qualifiers
 60;
                                                                                                                                                        O'Hagan, D., Otten, G., Donnelly, J.J., Polo, J.M., Singh, M., Ulmer, J. and Dubensky, T.W. Microparticles for delivery of the heterologous Patent: WO 0226209-A 63 04-APR-2002;
                                                                                                                                                                                                                                              Human immunodeficiency virus 1 (HIV-1)
Human immunodeficiency virus 1
Viruses; Retroid viruses; Retroviridae; Lentivirus;
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                                                                   /organism="Human immunodeficiency
/mol_type="unassigned DNA"
/db_xref="taxon:11676"
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/mol_type="unassigned DNA"
/mol_type="taxon:32630"
/mb.arref="synthetic Gag coding sequence of
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from Patent W00204493.
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Pred. No. 1.9e-07;
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               1.9e-07;
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c polypeptides,
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1 (bases 1 to 1485)
Gao,F., Li,Y., Decker,J.M., Peyerl,F.W., Bibollet-Ruche,F.,
Rodenburg,C.M., Chen,Y., Shaw,D.R., Allen,S., Musonda,R.,
Shaw,G.M., Zajac,A.J., Letvin,N. and Hahn,B.H.
Codon usage optimization of HIV type 1 subtype C gag, pol,
nef genes: in vitro expression and immune responses in
DNA-vaccinated mice
DNA-vaccinated mice
DNA-vaccinated mice
                                                                                                                Submitted (16-NOV-2002) Medicine, Duke University Medical Center, 112 RPIII, LaSalle Street, Durham, NC 27710, USA Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               O'Hagan,D., Otten,G., Donnelly,J.J., Polo,J.M., Barnett,S., Singh,M., Ulmer,J. and Dubensky,T.W. Microparticles for delivery of the heterologous nucleic acids Patent: WO 0225209-A 67 04-APR-2002; CHIRON CORPORATION (US)
                                                                                                                                                                                      AIDS Res. Hum. Retroviruses 19 (9), 817-823 (2003)
2 (bases 1 to 1485)
Gao,F., Li,Y., Decker,J.M., Bibollet-Ruche,F., Rodenburg,C.M.,
Chen,Y., Shaw,D.R., Allen,S., Musonda,R., Shaw,G.M., Zajac,A.J. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                AY181195 1485 bp DNA linear Synthetic construct HIV-1-derived gag protein (gag)
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Human immunodeficiency virus 1
Viruses; Retroid viruses; Retroviridae; Lentivirus; Primate
                                                                                                                                                           Direct Submission
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
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/mol_type="genomic DNA"
/db_xref="taxon:32630"
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/mol_type="unassigned DNA"
/db_xref="taxon:11676"
            gene="gag"
                                          note="codon usage optimization of HIV-1 96ZM651"
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Pred. No. 1.9e-07;
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AX455983
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                                                         artificial
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Query Match
Best Local Similarity
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                                                                                                                                                                          1494 bp
Sequence 51 from Patent W00204493.
AX455935
AX455935.1 GI:21714919
                                                                                                                                                                                                                                                                                                                                                                                                   1 GACATCAAGCAGGGCCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACCC
zur Megede,J., Barnett,S.W., Engelbrecht,S. and van Rensburg,B.
Polynucleotides encoding antigenic hiv type c polypeptides,
polypeptides and uses thereof
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Patent: WO 0204493-A 99 17-JAN-2002; CHIRON CORPORATION (US); University Location/Qualifiers
                                                                                                                 synthetic construct
synthetic construct
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ilarity 100.0%;
Conservative 0
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/codon start=1
/transI_table=11
/product="gag protein"
/protein_id="AAO65393.1"
/db_xref="GI:37413993"
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RIBERQNKIQOKIQOKIQOKOLQPÄLQTGTBBILRSLYNTVATLYCVHBGVEVRDTKBALD
RIBERQNKIQOKIQOKIQOKOLQPÄLYVSQNYPIVQNIQOGWYHQKLSPRTLNAWWKVIEB
KAPS PEVI FWFTALSEGATPQDILNTKLAVTVGGHQAMWKLXOTINBBALBEMDRILPYH
AGPIAPGQMEBERGSDIAGTTSTLQBQIAWNTSNPPIPVGDIYKRWIIILGLNKIVRMY
SPVSILDIKQGPKEPFRDYVDRFFKTLRABQATQBVKNWMTDTLLVQNANDCKTIKK
ALGPGATLEEMMTACQGYGGPSHKARVLABAMXGTNSVNILIMQKSNFKGNKAWXCTIK
CGKEGHIARNCRAPKKGNKGYKGOKKGHQMKDCTBRQANFLGKIWPSHKGRPGNFLQNR
PEPTAPPABSFRFEETTPAPKQESKDRBALTSLKSLFGSDFLSQ"
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/db_xref="taxon:32630"
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; Pred. No. 1.9e-07;
0; Mismatches 0;
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Pred. No. 1.9e-07;
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DEFINITION
ACCESSION
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AX427931
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Best Local S
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                                                                                                                    TITLE
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AX427931
AX427931.1 GI:21538018
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Modifications of hiv env, gag, and po
genetic immunization
Patent: WO 0232943-A 168 25-APR-2002;
GOVERNMENT OF THE UNITED STATES (US)
Location/Qualifiers
                                                    genetic immunization
Patent: WO 0232943-A 169 25-APR-2002;
GOVERNMENT OF THE UNITED STATES (US)
Location/Qualifiers
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synthetic construct
artificial sequences.
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AX427930
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                                                                                                                 Huang, Y. and Nabel, G.J.
Modifications of hiv env, gag, and pol enhance
                                                                                                                                                              artificial sequences.
                                                                                                                                                                            synthetic construct synthetic construct
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ilarity 100.0%;
Conservative 0
                                              1. .9169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="synthetic construct"
/mol_type="unassigned DNA"
/db_xref="taxon:32630"
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/mal_type="unassigned DNA"
/mb xref="ttaxon:35630"
/note="HIV Type C Gag optimized"
/mol_type="unassigned DNA"
/db_xref="taxon:32630"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              note="plasmid pvR1012x/s containing HIV genes"
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                             organism="synthetic construct"
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; Pred. No. 1.9e-07;
0; Mismatches 0;
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                                                                                                                   immunogenicity
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AX427936
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AX427938
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ORGANISM
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Best Local S
Matches 60
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AX427936
AX427936.1 GI:21538023
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                                                                                                                                        Huang, Y. and Nabel, G.J.

Modifications of hiv env, gag, and po-
genetic immunization
Patent: WO 0232943-A 174 25-APR-2002;
GOVERNMENT OF THE UNITED STATES (US)
LOCATION/Qualifiers
                                                                                                                                                                                                                                          synthetic construct
synthetic construct
artificial sequences.
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Patent: WO 0232943-A 176 25-APR-2002;
GOVERNMENT OF THE UNITED STATES (US)
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AX427938
h 100.0%; Score 60; DB 6; 1 Similarity 100.0%; Pred. No. 1.5e-07; 60; Conservative 0; Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
1. .9785
                                                                    /organism="synthetic construct"
/mol type="unassigned DNA"
/mb xref="texxon:32630"
/mbe="plasmid pVR1012x/s containing HTV
                                                                                                                               1. .9788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /organism="synthetic construct"
/mol_type="unassigned DNA"
/mol_type="unassigned DNA"
/db xref="taxon:32630"
/note="plasmid pVR1012x/s containing HTV genes"
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100.0%; Pred. No. 1.5e-07;
7ative 0; Mismatches 0;
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Sequence 4 from Patent W00204493.
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/mol_type="unassigned DNA"
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/mole="synthetic Gag of HIV strain AP110967"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human immunodeficiency virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HIV Gag major homology region nucleotides 844-903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               31-OCT-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; expression cassette; antigenic; type C; HIV; Env; synthetic; immunization; packaging cell line; antigen presentation; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
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99US-0152195P.
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Polynucleotide encoding antigenic type C HIV Gag polypeptide or a HIV Env polypeptide and the polypeptide useful for immunizing a mammal especially human against HIV.

WPI; 2000-452401/39.

Barnett S,

Zur Megede

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Claim 1; Page 92; 113pp; English.

Expression cassettes comprising a polynucleotide encoding antigenic type C human immunodeficiency virus (HIV) Gag or Env polypeptides are useful in DNA immunization, generation of packaging cell lines and production of Gag- and/or Env-containing proteins. Symthetic Env and Gag expression cassettes exhibit increased potency for induction of cytotoxic T-lymphocyte (CTL) responses by DNA immunization. Gag of HIV-1 self-assemble into non-infectious virus-like particles which are used as a assemble into non-infectious virus-like particles which are used as a for the proper presentation of an antigen entrapped or associated immune system of the host ō,

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Best Local (
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                                                                                                                                                                                                                                                                                                                               The present invention describes expression cassettes comprising a polymucleotide sequence encoding a polypeptide comprising immunogenic HIV type C polypeptides. The expression cassettes comprise any of the HIV type C sequences encoding Gag, Pol, Vif, Vpr, Tat, Rev, Vpu, Env or Nef (I). (I) have immunostimulant activity and can be used in gene therapy. The HIV type C polynucleotides are useful in applications including DNA immunisation, generation of packaging cell lines, and production of HIV Type C proteins. The polynucleotides are particularly useful in gene therapy and DNA immunisation applications. ABL39942 to ABL40054 and ABB06204 to ABB06215 represent sequences used in the exemplification of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New polynucleotides encoding antigenic HIV Type C polypeptides, useful in applications including DNA immunization or generation of packaging cell lines, particularly in gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human immunodeficiency virus; type C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human immunodeficiency virus type C; antigenic HIV type C protein; immunogenic; immunisation; gag; pol; vif; vpr; tat; rev; vpu; env; nef; immunostimulant; gene therapy; gene; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Synthetic Gag polynucleotide sequence SEQ ID NO:53
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                                                                                                                                                                                                                                           Sequence
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l Similarity 100.0%;
60; Conservative 0
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                                                                                                                                                    Similarity
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                                         GACATCAAGCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC
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                                                                                                                       100.0%; Score 60; DB 6; I larity 100.0%; Pred. No. 9.4e-10; Conservative 0; Mismatches 0;
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Pred. No. 9.4e-10;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  31-DEC-1998;
01-SEP-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human immunodeficiency virus; type C strain AF110965
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                                                                                                                                                                                                          matrix for the proper presentation of an antigen entrapped or to the immune system of the host
                                                                                                                                                                                                                                                                                                                                                 Claim 2; Page 92-93; 113pp; English.
                                                                                                                                                                                                                                                                                                                                                                                         Polynucleotide encoding antigenic type polypeptide and the polypeptide useful
  AAA51625 standard; DNA; 1479 BP
                                                                                                                                                                                Sequence 1479 BP; 325 A; 529 C; 463 G; 162 T; 0 U; 0 Other;
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                                                                                                                                                                                                                                                                                                                                                                               human
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; expression cassette; antigenic; type C; HIV; Env; synthetic; immunization; packaging cell line; antigen presentation; ss.
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                                                                     844 GACATCAAGCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC
                                                                                                                                                                                                                                                                                                                                                                             against HIV.
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                                                                                                                                        100.0%; Score 60; DB 3; 100.0%; Pred. No. 1.3e-09;
                                                                                                                           0
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                                                                                                                                                       Length 1479;
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31-OCT-2000

(first entry)

AAA51625

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codon-optimized synthetic Gag polynucleotide

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                                                                                                                                                                HIV; ds; vaccine; gene; immune response; microparticle; adsorbent surface; poly(alpha-hydroxy acid); polyhydroxy butyric polycaprolactone; polyorthoester; polycyanoacrylate; detergent; submicron emulsion; viral infection; bacterial infection; parasitic infection; HIV-1 p55gag polypeptide.
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                                                                                                                                                                                                                                                                                                                                         HIV-1 p55gag polypeptide coding sequence 1.
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08-NOV-2002
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01-SEP-1999;
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                                                                                                                immunodeficiency
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                                                                                                                                                                                                    adsorbent surface; poly(alpha-hydroxy acid); polyhydroxy butyric acid; polycaprolactone; polyorthoester; polycyanoacrylate; detergent; submicron emulsion; viral infection; bacterial infection; parasitic infection; HIV-1 psscar polymential
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30-AUG-2001;
                                            variation
                                                                                                                                                                           Human immunodeficiency virus 1.
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08-NOV-2002
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J, Dubensky
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Ulmer J, D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The invention relates to a method of raising an immune response in a host animal. The method of the invention comprises administering a microparticle that has an adsorbent surface to which a first biologically active macromolecule (e.g. a nucleic acid) has been adsorbed. The microparticle comprises a polymer microparticle of poly(alpha-hydroxy acid), a polyhdroxy butyric acid, a polycaprolactone, a polyorthoester, a polycyanoacrylate, a detergent, and submicron emulsion. The method/microparticle of the invention is useful for immunising a host animal against vital, bacterial or parasitic infections. The present DNA sequence encodes a HIV-1 p55gag polypeptide. (Updated on 29-AUG-2003 to standardise OS field)
                                                                       Human immunodeficiency virus type C; antigenic HIV type C protein; immunogenic; immunisation; gag; pol; vif; vpr; tat; rev; vpu; env; immunostimulant; gene therapy; gene; ds.
                                                                                                                                                                               Synthetic Gag
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A microparticle to which a biologically active macromolecule is adsorbed for use as a vaccine composition to treat viral, bacterial or parasitic infections, comprises a polymer microparticle, a detergent and a
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Dubensky TW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .3e-09;
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Synthetic.

Human immunodeficiency virus; type C

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          (CHIR )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New polynucleotides encoding antigenic HIV Type C polypeptides, useful in applications including DNA immunization or generation of packaging cell lines, particularly in gene therapy.
                                                                                                                                                             Human immunodeficiency virus; type C. Synthetic.
                                                                                                                                                                                                  Human immunodeficiency virus type C; antigenic HIV type C immunogenic; immunisation; gag; pol; vif; vpr; tat; rev; v immunostimulant; gene therapy; gene; ds.
                                                     05-JUL-2000; 2000US-00610313.
                                                                                                                                                                                                                                                            Synthetic Gag polynucleotide sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 1479 BP; 325 A; 529 C; 463 G; 162 T; 0 U; 0 Other;
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                                                                                                                                                                                                                                                                                                                   ABL39957;
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           CHIRON CORP.
UNIV STBLLENBOSCH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
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                                                                               2001WO-US021241.
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100.0%; Pred. No.
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Best Local Similarity
Matches 60; Conserv
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(UYST-)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human immunodeficiency virus type C; antigenic HIV type C protein; immunogenic; immunisation; gag; pol; vif; vpr; tat; rev; vpu; env; immunostimulant; gene therapy; gene; ds.
                                                                                                                                                                         New polynucleotides encoding antigenic HIV applications including DNA immunization or lines, particularly in gene therapy.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STELLENBOSCH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                    Barnett SW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%;
                                                                                                         English
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Pred. No. 1.3e-09;
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                                                                                                                                                                                                                   Type C polypeptides, useful in generation of packaging cell
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The present invention describes expression cassettes comprising polynucleotide sequence encoding a polypeptide comprising immun

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Sequence 1494

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                                                                                    The present invention describes expression cassettes comprising a polynuclectide sequence encoding a polypeptide comprising immunogenic HIV type C polypeptides. The expression cassettes comprise any of the HIV type C sequences encoding Gag, Pol, Vif, Vpr, Tat, Rev, Vpu, Env or Nef (I). (I) have immunostimulant activity and can be used in gene therapy. The HIV type C polynuclectides are useful in applications including DNA immunisation, generation of packaging cell lines, and production of HIV Type C proteins. The polynuclectides are particularly useful in gene therapy and DNA immunisation applications. ABL39942 to ABB46215 represent sequences used in the exemplification of the polynuclectices used in the exemplification of the polynuclectices used in the exemplification of the polynuclectices.
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(UYST-)
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                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 7;
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UNIV STELLENBOSCH
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                                                                                                                                                                                                                                                                            The invention describes a synthetic polynucleotide encoding 2 or more immunogenic HIV polypeptides, where at least 2 of the polypeptides are derived from different HIV subtypes. The polynucleotide is useful for immunisation, generation of packaging cell lines, or production of HIV polypeptides. The polynucleotide and its encoded proteins are useful as immunogenic compositions or vaccines for generating humoral or cellular immune responses against HIV in a subject, or for inducing neutralising antibodies against HIV. The gene delivery vector comprising the polynucleotide is also useful for DNA immunisation of, or for generating an immune response (e.g. a humoral or cellular immune response) in, a subject such as a mammal, particularly a human. This sequence encodes a human immunodeficiency virus immunogenic peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New synthetic polynucleotides encoding antigenic HIV type B and/or type C polypeptides, useful as immunogenic compositions or vaccines for generating humoral or cellular immune responses against HIV in a subject, especially humans.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Immunogenic HIV polypeptide; human immunodeficiency virus; HIV; vaccine; gene therapy; packaging cell line; humoral immune response; cellular immune response; gene delivery vector; DNA immunisation; ds.
                                                                                                                                                                                                                                Sequence 2742
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31-AUG-2001; 2001US-0316860P.
16-JAN-2002; 2002US-0349728P.
16-JAN-2002; 2002US-0349793P.
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Pred. No. 1.3e-09;
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18-DEC-2003 ADC13278; ADC13278

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                                                                                                                                                                                            The invention describes a synthetic polynucleotide encoding 2 or more immunogenic HIV polypeptides, where at least 2 of the polypeptides are derived from different HIV subtypes. The polynucleotide is useful for immunisation, generation of packaging cell lines, or production of HIV polypeptides. The polynucleotide and its encoded proteins are useful as immunogenic compositions or vaccines for generating humoral or cellular immune responses against HIV in a subject, or for inducing neutralising antibodies against HIV. The gene delivery vector comprising the polynucleotide is also useful for DNA immunisation of, or for generating an immune response (e.g. a humoral or cellular immune response in, a subject such as a mammal, particularly a human. This sequence encodes a human immunodeficiency virus immunogenic peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Immunogenic HIV polypeptide; human immunodeficiency virus; HIV; vaccine; gene therapy; packaging cell line; humoral immune response; cellular immune response; gene delivery vector; DNA immunisation; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACA03524 standard; DNA; 2742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New synthetic polynucleotides encoding antigenic HIV type B and/or type C polypeptides, useful as immunogenic compositions or vaccines for generating humoral or cellular immune responses against HIV in a subject, especially humans.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Synthetic DNA ecoding immunogenic HIV peptide
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16-JAN-2002; 2002US-0349739P
16-JAN-2002; 2002US-0349797
16-JAN-2002; 2002US-0349871P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               05-JUL-2002; 2002WO-US021421
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                                                                                                                                      Sequence 2742 BP; 578 A; 1020 C; 859 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 1; Fig 12; 262pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              05-JUL-2001; 2001US-0303192P
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100.0%; ilarity 100.0%; Conservative 0
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   Score 60; DB
Pred. No. 1.4
); Mismatches
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                                                                                                                                             285 T; 0 U; 0 Other;
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                                                                        Length 2742;
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RESULT 14
ADC13241
ID ADC13
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AC ADC13
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DT 18-DE
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DNA c
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PR expre
KW expre
KW Rev;
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Matches 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The invention relates to a novel expression cassette comprising a polymucleotide sequence encoding a polypeptide including an HIV Gag, Env, Int. Nef, plsknaseH, Pol, Tat, Prot, or Rev polypeptide. The novel expression cassette can be used to treat HIV type C by gene therapy or used in the development of a vaccine. The gene delivery vector is administered intramuscularly, intramucosally, intransally, subcutaneously, intradermally, transdermally, intraveginally, intraveginally, intravectally, orally or intravenously. The expression cassette is useful for immunisation, generating packaging cell lines and producing HIV polypeptides. This polymucleotide sequence represents the DNA of an HIV Type C related sequence of the invention.
                                                                                                                                         DNA of HIV
                                  WO2003004620-A2
                                                                                              expression cassette; HIV Gag; Env; Int; Nef; p15RnaseH; Pol; Tat; Rev; HIV type C; gene therapy; vaccine; immunisation; HIV; ds.
                                                                                                                                                                                                       ADC13241;
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31-AUG-2001; 2001US-0316860P.
16-JAN-2002; 2002US-0349871P.
                                                                                                                                                                        18-DEC-2003
                                                                                                                                                                                                                                      ADC13241 standard; DNA; 2742
                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure; Fig 54; 301pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          packaging cell lines.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New expression cassette comprising a polynucleotide sequence encoding polypeptide including an HIV Gag, Env. Int. Nef. p15KnaseH, Pol. Tat. Prot. or Rev polypeptide, useful for immunization, or generating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Zur Megede J,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     expression cassette; HIV Gag; Env; Int; Nef; p15RnaseH; Pol; Tat; Prot; Rev; HIV type C; gene therapy; vaccine; immunisation; HIV; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DNA of HIV construct TatRevNefGag_C SEQ ID NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (CHIR ) CHIRON CORP.
(UYST-) UNIV STELLENBOSCH
                                                                                                                                                                                                                                                                                                                  2104
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                                                                immunodeficiency virus
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                                                                                                                                                                                                                                                                                                                                                                              60;
                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                            type C;
                                                                                                                                                                                                                                                                                                                GACATCAAGCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                          2742 BP; 578 A; 1020 C; 859 G; 285 T;
                                                                                                                                         construct GagTatRevNef_C SEQ ID NO 20.
                                                                                                                                                                                                                                                                                                                                                                            100.0%; Score 60; DB 9; 1 llarity 100.0%; Pred. No. 1.4e-09; Conservative 0; Mismatches 0;
                                                                                                                                                                        (first entry)
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                                                                                            gene
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                                                                                                                                                                                                                                      ВP
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16-JAN-2003

Zur Megede J,

Barnett SW,

Lian

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Engelbrecht S,

Van

Rensburg

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ADC13239
ID ADC13
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XX DNA
XX DNA
XX Exp
XX Rev;
XX Rev;
XX WO2(
PN WO2(
PN 05-(
XX DNA
XX Huma
XX WO3-(
PN 16-(
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Best Local 9
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31-AUG-2001;
16-JAN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The invention relates to a novel expression cassette comprising a polynucleotide sequence encoding a polypeptide including an HIV Gag, Int, Nef, pl5RnaseH, Pol. Tat, Prot, or Rev polypeptide. The novel expression cassette can be used to treat HIV type C by gene therapy used in the development of a vaccine. The gene delivery vector is administered intramuscularly, intramucosally, intransaslly, subcutaneously, intradermally, transdermally, intravaginally, intravaginally, intravenously, orally or intravenously. The expression cassette is u for immunisation, generating packaging cell lines and producing HIV polypeptides. This polymucleotide sequence represents the DNA of an I Type C related sequence of the invention.
                                                                                                                                05-JUL-2001; 2001US-0303192P
31-AUG-2001; 2001US-0316860P
16-JAN-2002; 2002US-0349871P
                                                                                                                                                                                                                                                                                                                                                                                                                                                        expression cassette; HIV Gag; Env; Int; Rev; HIV type C; gene therapy; vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New expression cassette comprising a polynucleotide sequence encopolypeptide including an HIV Gag, Env, Int, Nef, p15RnaseH, Pol, Prot, or Rev polypeptide, useful for immunization, or generating packaging cell lines.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI;
                                                                                                                                                                                                                                               05-JUL-2002; 2002WO-US021420
                                                                                                                                                                                                                                                                                                 16-JAN-2003
                                                                                                                                                                                                                                                                                                                                                    WO2003004620-A2
                                                                                                                                                                                                                                                                                                                                                                                                         Human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA of HIV construct GagRTmut_C SEQ ID NO 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADC13239;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADC13239 standard; DNA; 3162 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure; Fig 17; 301pp; English
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 60; DB 9;
Pred. No. 1.4e-09;
Mismatches 0;
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immunisation; HIV; ds.
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The invention relates to a novel expression cassette comprising a polynucleotide sequence encoding a polypeptide including an HIV Gag, Env, Int, Nef, piSRnaseH, Pol, Tat, Prot, or Rev polypeptide. The novel expression cassette can be used to treat HIV type C by gene therapy or used in the development of a vaccine. The gene delivery vector is administered intramuscularly, intramucosally, intranasally, subcutaneously, intradermally, transdermally, intravaginally, subcutaneously, orally or intravenously. The expression cassette is useful for immunisation, generating packaging cell lines and producing HIV polypeptides. This polymucleotide sequence represents the DNA of an HIV Type C related sequence of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New expression cassette comprising a polynucleotide sequence encoding polypeptide including an HIV Gag, Env, Int, Nef, p15RnaseH, Pol, Tat, Prot, or Rev polypeptide, useful for immunization, or generating packaging cell lines.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure; Fig 15; 301pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2003-221593/21.
                                                                                                                                                                              Sequence 3162 BP; 729 A; 1095 C; 975 G; 363 T; 0 U; 0 Other;
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                                           GACATCAAGCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACC 60
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Search completed: May 28, 2004, 09:49:05 Job time : 29.8049 secs 문 S Query Match 100.0%; Score 60; DB 9; I Best Local Similarity 100.0%; Pred. No. 1.4e-09; Matches 60; Conservative 0; Mismatches 0;

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TIGARGGGCTTCGCCTGAACCCCGGCTGCTGGAGACCGCCGAGGGCTGCAAGCAGATC	79.6%; Score 1201; DB 4; Length 1515; imilarity 88.5%; Pred. No. 9.3e-170; ; Conservative 0; Mismatches 140; Indels 36; Gaps ; Conservative 140; Indels 36; Gaps ; Conservative 140; Indels 36; Gaps ; Conservative 140; Indels 36; Gaps ; Conservative 140; Indels 36; Gaps ; Conservative 140; Indels 36; Gaps ; Conservative 140; Indels 36; Gaps ; Conservative 140; Indels 36; Gaps ; Conservative 140; Indels 36; Gaps ; Conservative 140; Indels 36; Gaps ; Conservative 140; Indels 36; Gaps ; Conservative 140; Indels 36; Gaps ; Conservative 140; Indels 36; Gaps ; Conservative 140; Indels 36; Gaps ; Conservative 140; Indels 36; Gaps ; Conservative 140; Indels 36; Indel	: HARTOG, Karin : LIU, HONG : GREER, Catherine : SELBY, MARK : WALKER, Christopher INVENTION: IMPROVED EXPRESSION INVENTION: OF VIRUS-LIKE PARTI- RENCE: 1621.002 IPLICATION NUMBER: US/09/475,5 ILING DATE: 1999-12-30 SEQ ID NOS: 90 Patentin Ver. 2.0 1515 IA IR IR IFORMATION: Description of Arti- IFORMATION: HIV-Gag	tion US/09475515A : ; Susan EDB, Jan AVA, Indresh	9709 9709 9709 9709 12479 12494 12581 15581 15581 1560 1845 4313 9737 9737 2025 5362
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GENERAL INFORMATION: GENERALIAN:
GENERAL LAW:
APPLICANT: BARNETT, SUSAN
APPLICANT: ENIVASTAVA, Indresh
APPLICANT: LIAN, Ying
APPLICANT: HARTOZ, KARIN
APPLICANT: HARTOZ, KARIN
APPLICANT: HARTOZ, KARIN
APPLICANT: SELBY, MAIK
APPLICANT: WALKER, Christopher
ITITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PROD
ITITLE OF INVENTION: OF VIRUS-LIKE PARTICLES
FILE REFERENCE: 1621.002
CURRENT FILING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 90
SOFTWARE: PATEILING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 90
SOFTWARE: PATEILING DATE: 1999-12-30
SEQ ID NO 75
LENGTH: 4472
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
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GENERAL INFORMATION:
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Best Local Similarity 88.5%;
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CCCGAGCCCACCGCCCCCCGAGGAGAGAGCTTCCGCTTCGGCGAGGAGAAGACCACCCCC
                          ACCGTGCCCACCGCCCCCCCCCCGAGAGCTTCCGCCTTCGAGGAGACCACCCCCCGCCCCC 1422
                                                                                 GAGGGCCACCAGATGAAGGACTGCACCGAGCGCCAGGCCAACTTCCTGGGCAAGATCTGG 1302
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GENERAL INFORMATION:

GENERAL INFORMATION:

APPLICANT: BARNETT, Susan

APPLICANT: ZIR MEGEDE, Jan

APPLICANT: LIAN, Ying

APPLICANT: LIAN, Ying

APPLICANT: LIAN, Ying

APPLICANT: LIAN, Ying

APPLICANT: HARTOG, Karin

APPLICANT: GREER, Catherine

APPLICANT: GREER, Catherine

APPLICANT: SELBY, Mark

APPLICANT: SELBY, Mark

APPLICANT: MAIKER, Chistopher

TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PROFITILE OF INVENTION: OF VIRUS-LIKE PARTICLES

FILE REFERENCE: 1621.002

CURRENT APPLICATION NUMBER: US/09/475,515A

CURRENT FILING DATE: 1999-12-30

NUMBER OF SEQ ID NOS: 90

SOPTWARE: Patentin Ver. 2.0

SEQ ID NO 76
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TYPE: DNA
ORGANIGM: Artificial Sequence
ORGANIGM:
OTHER INFORMATION: Description of Artificial Sequence:
OTHER INFORMATION: gp160.modSF162.delV2.gag.modSF2
US-09-475-515-76
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Best Local :
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Local Similarity 88.5%;
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CAGGGCCAGATGGTGCACCAGGCCATCAGCCCCCGCACCCTGAACGCCTGGGTGAAGGTG
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                                                                  GCCGACGGCA------AGGTGAGCCAGAACTACCCCCATCGTGCAGAACCTG
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APPLICANT: LIAN, Ying
APPLICANT: HARTOG, Karin
APPLICANT: HARTOG, Karin
APPLICANT: GREEK, Catherine
APPLICANT: SELEY, Mark
APPLICANT: WALKER, Christopher
TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND
TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES
FILE REFERENCE: 1621.002
CURRENT APPLICATION NUMBER: US/09/475,515A
CURRENT FILING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 90
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 74
LENGTH: 4689
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; ORGANISM: Artificial Sequence
; PEATURE:
OTHER INFORMATION: Description of Artificial Sequence:
; OTHER INFORMATION: gp160.modSF162.gag.modSF2
US-09-475-515-74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 74, Application Patent No. 6602705 GENERAL INFORMATION:
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APPLICANT: ZUR MEGEDE, Jan
APPLICANT: SRIVASTAVA, Indresh
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                                                                                  CAGGGCCAGATGGTGCACCAGGCCATCAGCCCCGCACCCTGAACGCCTGGGTGAAGGTG
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                         ATCGAGGAGAAGGCCTTCAGCCCCGAGGTGATCCCCCATGTTCACCGCCCTGAGCGAGGGC 525
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RESULT 5
US-09-475-515-73
; Sequence 73, Application
; Patent No. 6602705
; GENERAL INFORMATION:
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; TYPE: DNA
; ORGANISM: Artificial Sequence
; PEATURE:
; OTHER INFORMATION: Description of Artificial
; OTHER INFORMATION: gp160.modUS4.gag.modSF2
US-09-475-515-73
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APPLICANT: SELBY, Mark
APPLICANT: WELER, Christopher
APPLICANT: WALKER, Christopher
APPLICANT: WALKER, Christopher
APPLICANT: WINDER, Christopher
TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES
FILL REFERENCE: 1621.002
CURRENT APPLICATION NUMBER: US/09/475,515A
CURRENT APPLICATION NUMBER: US/09/475,515A
CURRENT FILING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 90
SOFTWARE: PatentIn Ver. 2.0
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Best Local Similarity
Matches 1351; Conserv
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ZUR MEGEDE, Jan
SRIVASTAVA, Indresh
                              CAGATGCTGAAGGACACCATCAACGAGGAGGCCGCCGAGTGGGACCGCCTGCACCCCGTG
                                                                      GCCACCCCCAGGACCTGAACACGATGTTGAACACCGTGGGCCGCCACCAGGCCGCCATG 585
                                                                                                                           ATCGAGGAGAAGGCCTTCAGCCCCGAGGTGATCCCCCATGTTCACCGCCCTGAGCGAGGGC
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                   CAGATGCTGAAGGAGACCATCAACGAGGAGGCCGCCGAGTGGGACCGCGTGCACCCCGTG
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Pred. No. 9e-170;
0; Mismatches 140;
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RESULT 6
US-09-475-515-7
VS-09-475-515-7
Sequence 7, Application US/09475515A
Patent No. 6602705
GENERAL INFORMATION:
APPLICANT: BARNETT, Susan
APPLICANT: SRIVASTAVA, Indresh
APPLICANT: LIAN, Ying
APPLICANT: LIAN, Warin
APPLICANT: LIU, Hong
APPLICANT: LIU, Hong
APPLICANT: GREER, Catherine
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APPLICANT: WALKER, Christopher
TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV PO!
TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES
FILE REFERENCE: 1621.002
CURRENT APPLICATION NUMBER: US/09/475,515A
CURRENT FILING DATE: 199-12-30
NUMBER OF SEQ ID NOS: 90
SOPTWARE: Patentin Ver. 2.0
SOPTWARE: Patentin Ver. 2.0
SOPTWARE: ACCOUNTY OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIAL OF THE PATENTIA
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Best Local Similarity 88.5%;
Matches 1349; Conservative
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IENGTH: 2031
TYPE: DNA
DRAMISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence:
OTHER INFORMATION: HIV-Gag/HCV-core fusion polypeptide
US-09-475-515-7 POLYPEPTIDES synthetic ğ PRODUCTION

Score 1199; DB 4; Pred. No. 1.8e-169; 0; Mismatches 140; Length Indels 36; Gaps

GCCGACGGCA------AGGTGAGCCAGAACTACCCCATCGTGCAGAACCTG CTGCGCCCCGGCGGCAAGAAGCACTACATGCTGAAGCACCTGGTGTGGGCCAGCCGCGAG CTGGAGGGCTTCGCCCTGAACCCCGGCCTGCTGGAGAACCGCCGAGGGCTGCAAGCAGATC GCCACCAGCACCCTGCAGGAGCAGATCGCCTGGATGACCAGCAACCCCCCCGTGCCCGTG CAGGCCGGCCCCATCGCCCCGGCCAGATGCGCGACCCCGCGGCAGCGACATCGCCGGCCAGCCGCCCATCGCCCGGCCAGATGCGCCAGCCCGCGGCAGCAGATCGCCGGC CAGATGCTGAAGGACACCATCAACGAGGAGGCCGCCGAGTGGGACCGCCTGCACCCCGTG GCCACCCCCAGGACCTGAACACGATGTTGAACACCGTGGGCGGCCACCAGGCCGCCATG GTGGAGGAGAGGCCTTCAGCCCCGAGGTGATCCCCCATGTTCAGCGCCCTGAGCGAGGGC ATCGAGGAGAAGGCCTTCAGCCCCGAGGTGATCCCCCATGTTCACCGCCCTGAGCGAGGGC CAGGGCCAGATGGTGCACCAGGCCATCAGCCCCCGCACCCTGAACGCCTGGGTGAAGGTG CTGGACAAGATCGAGGAGGAGCAGAACAAGTCCCAGCAGAAGAAGACCCAGCAGGCCAAGGAG ACCGTGGCCACCCTGTACTGCGTGCACCAGCGCATCGACGTCAAGGACACCAAGGAGGCC ACCGTGGCCACCCTGTACTGCGTGCACGCCGGCATCGAGGTCCGCGACACCAAGGAGGCC CTGGGCCAGCTGCAGCCTGCAGACCGGCAGGAGGAGCTGCGCAGCCTGTACAAC ATGAAGCAGCTGCAGCCCGCCCTGCAGACCGGCACCGAGGAGCTGCGCAGCCTGTACAAC 240 126 585 366 360 300 246 186 180 120 66 765 705 999 645 909 546 525 486 465 426 405 306 786 726

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Sequence 5, Application US/09475515A

Patent No. 6602705

Patent No. 6602705

GENERAL INFORMATION:
APPLICANT: BARNETT, Susan
APPLICANT: ZUR MEGEDE, Jan
APPLICANT: TUR MEGEDE, Jan
APPLICANT: LIN, Ying
APPLICANT: LIU, Hong
APPLICANT: LIU, Hong
APPLICANT: GREER, Catherine
APPLICANT: WALKER, Christopher
TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION
TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES
FILE REFERENCE: 1621.002
CURRENT APPLICATION NUMBER: US/09/475,515A
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US-09-475-515-5
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SOPTWARE: PATENTIN Ver. 2.0
SEQ ID NO 5
LENGTH: 1853
TYPE: DNA
ORGANISM: Artificial Sequence
PEATURE:
OTHER INFORMATION: Description of Artificial Sequence: synthetic
OTHER INFORMATION: HIV-Gag-protease
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Sequence 78, Application US/09475515A

Patent No. 6602705

APPLICANT: BARNETT, Susan

APPLICANT: ZUR MEGEDE, Jan

APPLICANT: LIU, MEGEDE, Jan

APPLICANT: LIU, Hong

APPLICANT: LIU, Hong

APPLICANT: SELBY, Mark

APPLICANT: SELBY, Mark

APPLICANT: WALKER, Christopher

ITITLE OF INVENTION: OF VIRUS-LIKE PARTICLES

FILE REFERENCE: 1621.002

CURRENT APPLICATION NUMBER: US/09/475,515A

CURRENT PILING DATE: 1999-12-30

NUMBER OF SEQ ID NOS: 90
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0; Mismatches 192;
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Query Match 74.1%; Score 1117.8; DB 4; Length 1865; Best Local Similarity 85.1%; Pred. No. 1.8e-157; Matches 1299; Conservative 0; Mismatches 192; Indels 36; Gaps 3; Matches 1299; Conservative 0; Mismatches 192; Indels 36; Gaps 3; Oy 1 ATGGGCGCCCGCGCCAGCATCCTGCGCGGGGGAGAAGCTGGACAAGTGGGAGAAGATCCGC 60	SEQ ID NO 79  SEQ ID NO 79  LENGTH: 1865  TYPE: DNA  ORGANISM: Artificial Sequence  PRATURE: OTHER INFORMATION: Description of Artificial Sequence: GP2  US-09-475-515-79	TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES FILE REFERENCE: 1621.002 CURRENT APPLICATION NUMBER: US/09/475,515A CURRENT FILING DATE: 1999-12-30 NUMBER OF SEQ ID NOS: 90	APPLICANT: LIAL, Ying APPLICANT: HARTOG, Karin APPLICANT: LIU, Horo APPLICANT: GIU, Horo APPLICANT: GERR, Catherine APPLICANT: SELBY, Mark APPLICANT: WALKER, Christopher APPLICANT: WALKER, Christopher APPLICANT: WALKER, Christopher APPLICANT: WALKER, Christopher APPLICANT: WALKER, Christopher APPLICANT: WALKER, Christopher APPLICANT: WALKER, Christopher APPLICANT: WALKER, Christopher APPLICANT: WALKER, Christopher APPLICANT: WALKER, Christopher APPLICANT: WALKER, Christopher APPLICANT: WALKER, Christopher	BSULT 9  S-09-475-515-79  Sequence 79, Application Patent No. 6602705  GENERAL INFORMATION:  APPLICANT: BARNETT, Sus APPLICANT: CIR MEGEDE,	Oy 1483 TTCGGCAGCGCCCCTGAGCCAGTAA 1509	AAGCAGGAGCCCAAGGACCGCGAGCCCC 	ACCGTGCCCACCGCCCCCCCCCCCGCCGCCCCCCCCCCC	QY 1303 CCCAGCCACAAGGGCCCCCGGCAACTTCCTGCAGAACCGCAGCCAGC	OY 1243 GAGGGCCACCAGATGAAGGACTGCACCGAGGCCCAAGTCCTGGGCAAGATCTGG 1302	OY 1183 GGCCACATCGCCAAGAACTGCCGCCCCCCCCAAGAAGGGCTGCTGGAAGTGCGGCAAG 1242	QY 1123 CAGAAGAGAACTTCAAGGGCCCCCGGCGAACGTCAAGTGCTTCAACTGCGGCAAGGAG 1182	QY 1066 AAGGCCCGCGTGCTGGCCGAAGGCAAGGCAGGCCAACAGCGTGAACATCATGATG 1122	CCCGCGGCCACCCTGGAAGAATGAATGACCGCCTGCCAAGGGCGTGGGCGGCCACCCCGGCCAC	973
OY 1006 CCCGGCGCCACCCTGGAGGAGGATGACCGCCTGCCAGGGCGTGGGCGCCCGGCCCAC 1065	GGTTCTTCARGACCTIGGGGCGAGGCAGCCAGGACGCGAGAACACTGAATACACCTGIIIIIIIIII	826 CCCGTGAGCATCCTGGACATCCGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGAC 	Qy 706 GCCACCAGCACCCTGCAGGAGCAGATCGCCTGGATGACCAGCAACCCCCCCGTGCCCGTG 765	Qy 586 CAGATGCTGAAGGACACCATCAACGAGGAGGCCGCCGAGTGGGACCGCCCGGG 645	OY 526 GCCACCCCCAGGACCTGAACACGATGTTGAACACCGTCGGCGGCCACCAGGCCGCCATG 585	OY 466 ATCGAGGAGAAGGGCCTTCAGCCCCGAGGTGATCCCCATGTTCAGCCCCTGAGCGAGGGC 525	Qy 406 CAGGGCCAGATGGTGCACCAGGCCATCAGCCCCGGACCCTGGACGCCTGGGTGAAGGTG 465	361 GCCGACGGCAAGGTGAGCCAGAACTACCCCATCGTGCAGAACCTG	301	Qy 241 ACCGTGGCCACCTGTACTGCGTGCACGCGGCATCGAGGTCCGCGACACCAAGGAGGCC 300	Qy 181 ATGAAGCAGCTGCAGCCCGCCCTGCAGACCGAGGAGCTGCGCAGCCTGTACAAC 240	OY 121 CTGGAGGGCTTCGCCCTGAACCCCGGCCTGCTGGAGACCGCCGAGGGCTGCAAGAAGATC 180	OY 61 CTGCGCCCCGGCGCAAGAAGCACTACATGCTGAAGCACCTGGTGTGGGCCAGCCGCGAG 120	

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APPLICANT: BARNETT, Susan
APPLICANT: ZUR MEGEDE, Jan
APPLICANT: LIAN, Ying
APPLICANT: LIAN, Ying
APPLICANT: LIAN, Ying
APPLICANT: LIAN, Ying
APPLICANT: HARTOG, Karin
APPLICANT: GREER, Catherine
APPLICANT: SELBY, Mark
APPLICANT: SELBY, Mark
APPLICANT: WENTION: IMPROVED EXPRESSION OF HIV POL
TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES
TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES
TITLE OF INVENTION NUMBER: US/09/475,515A
CURRENT APPLICATION NUMBER: US/09/475,515A
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TYPE: DNA
ORGANISM: Artificial Sequence
PEATURE:
OTHER INFORMATION: Description of Artificial
OTHER INFORMATION: HIV-Gag-polymerase
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Local Similarity 85.1%;
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GGCCACATCGCCAAGAACTGCCGCGCCCCCCCCAAGAAGGGCTGCTGGAAGTGCGGCAAG
                                                CAGAAGAGCAACTTCAAGGGCCCCCGGCGCAACGTCAAGTGCTTCAACTGCGGCAAGGAG
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61 CTGCGCCCGGCGGCAGAAGCCTACATGCTGAAGCCCTGGTGCGCAGCCGGGGGGCAGGCCGGGGGGGCAAGAAGCACTACATGCTGAAGCACCTGGTGGGCCAGCCGCGGAGGGGGGGCAAGAAGCACATACTGAAGCACCTGGTGGGCCAGCCGGAGGGGCTGCCGGGGGGGG	Query Match 69.5%; Score 1049.2; DB 4; Length 1268; Best Local Similarity 90.8%; Pred. No. 2.5e-147; Matches 1146; Conservative 0; Mismatches 98; Indels 18; Gaps 2;  Qy 1 ATGGGCGCCCAGCATCCTGCGCAGAAAGCTGGACAAAGTGGGAGAAGATCCGC 60	; SEQ ID NO 9 ; LENGTH: 1268 ; TYPE: DNA ; ORGANISM: Artificial Sequence ; PEATURE: ; OTHER INFORMATION: Description of Artificial Sequence: synthetic Gag ; OTHER INFORMATION: common region US-09-475-515-9	APPLICANT: TITLE OF IN TITLE OF IN TITLE REPERE CURRENT APE CURRENT FII NUMBER OF S SOPTWARE: E	APPLICANT: BARNETT, Susan  APPLICANT: ZUR MEGEDE, Jan  APPLICANT: SEIVASTAVA, Indresh  APPLICANT: LIAN, Ying  APPLICANT: HARTOG, Karin  APPLICANT: LIU, Hong  APPLICANT: LU, Hong  APPLICANT: SELBY, Mark	Db 1489 TTTĠĊAAĊĠAĊCCCTCGTCAĊAĠŢĀĀ 1515  RBSULT 11 US-09-475-515-9 ; Sequence 9, Application US/09475515A ; Pacent No. 6602705 ; GENERAL INFORMATION:	1423 1429 1483	
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APPLICANT: Oxford Blomedica (UK) Limited
TITLE OF INVENTION: Anti-Viral Vectors
FILS REFERENCE: 674524-2004
CURRENT APPLICATION NUMBER: US/09/552,950
CURRENT FILING DATE: 2000-04-20
NUMBER OF SEQ ID NOS: 22
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Best Local Simi
Matches 1173;
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Patent No. 6541248
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RESULT 13
US-09-552-950-5
IS Sequence 5, Application US/09552950
Patent No. 6541248
Patent NO. 6541248
REPERIORATION:
APPLICANT: OXFORD Biomedica (UK) Limited
TITLE OF INVENTION: Anti-Viral Vectors
FILE REFERENCE: 674524-2004
CURRENT APPLICATION UMBER: US/09/552,950
CURRENT FILING DATE: 2000-04-20
NUMBER OF SEQ ID NOS: 22
SOPTWARE: Patentin Ver. 2.1
SEQ ID NO 5
LENGTH: 9772
TYPE: DNA

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Best Local Similarity
Matches 1175; Conserv
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                                                          AGCATCCTGGACATCCGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTC 891
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Pred. No. 4.6e-129;
0; Mismatches 316;
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APPLICANT: The Government of the United States of America, as ITITLE OF INVENTION: MOLECULAR CLONES WITH MUTATED HIV GAG/POL, SIV ITITLE OF INVENTION: SIV ENV GENES
FILE REFERENCE: 2026-4287USI HIV GAG/POL, SIV GAG & ENV CURRENT APPLICATION NUMBER: US/09/872,733A
CURRENT FILING DATE: 2001-06-01
PRIOR APPLICATION NUMBER: PCT/US00/34985
PRIOR PILING DATE: 2001-12-22
PRIOR PILING DATE: 2001-12-23
INUMBER OF SEQ ID NOS: 19
SOPTWARE: Patentin Ver. 2.1
SEQ ID NO 6
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US-09-872-733A-6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 6, Application US/09872733A Patent No. 6656706 GENERAL INFORMATION:
Query Match 48.8%;
Best Local Similarity 69.5%;
Matches 1057; Conservative
                                                                       OTHER INFORMATION: Description of Artificial Sequence: DNA sequence OTHER INFORMATION: of the construct pCMVgagpolBNKan containing a CMV OTHER INFORMATION: promoter, a HIV gag/pol gene and a kanamycin OTHER INFORMATION: resistance gene
                                                                                                                                                                          LENGTH: 8366
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
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Score 736.6; DB 4;
Pred. No. 3.6e-101;
O; Mismatches 434;
                                  Length 8366;
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US-09-184-418C-82
Sequence 82, Application US/09184418C
Patent NO. 6492110
GENERAL INFORMATION:
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US-09-184-418C-82
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APPLICANT: Gao, Feng
APPLICANT: Shaw, George
APPLICANT: Shaw, George
APPLICANT: Shaw, George
APPLICANT: Shaw, George
TITLE OF INVENTION: CLOMES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
TITLE OF INVENTION: IMMUNODEFICIENCY VIRUS TYPE 1
FILE REPERENCE: D6287
CURRENT APPLICATION NUMBER: US/09/184,418C
CURRENT APPLICATION NUMBER: US/09/184,418C
CURRENT FILING DATE: 1999-11-02
NUMBER OF SEG ID NOS: 112
SEG ID NO 82
LENGTH: 1496
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Best Local S
Matches 1020
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                               ATGAAGCAGCTGCAGCCCGCCTGCAGACCGGCACCGAGGAGCTGCGCAGCCTGTACAAC 240
                                                                                           CTGGAGGGCTTGGCCCTGAACCCCCGGCCTGCTGGAGAACCGCCGAGGGCCTGCAAGCAGATC
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## ALIGNMENTS

	JOURNAL COMMENT	TITLE	AUTHORS		SOURCE ORGANISM	VERSION KEYWORDS	ACCESSION	DEFINITION	Locus	CC391778
Contact: Cathy Willeraw TIGR 9712 Medical Center Drive, Rockville, MD 20850, USA Tel: 301-838-5843 Fax: 301-838-0208 Email: whitelaw@tigr.org Seq primer: TR	Unpublished (2003) Other GSSs: PUHIJ70TD Other GSSs: PUHIJ70TD	Resnick,A., Fraser,C.M., Yuan,Y., San Miguel,F., Ma,J. and Bennetzen,J. Maire Genomics Consortium	Whitelaw, C.A., Quackenbush, J., Van Aken, S., Utterback, T.,	Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD clade; Panicoideae; Andropogoneae; Zea.	Zea mays Zea mays	CC391778.1 GI:30871868 GSS.	genomic survey sequence. CC391778	B ZM_0.6_1.0_KB Zea mays genomic cl	CC391778 933 bp DNA linear GSS 19-MAY-2003	

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CDA43-COB 3', mRNA sequence.
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
Acanthomorpha; Acanthopterygii; Percomorpha; Gasterosteiformes;
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Stanford University School of Medicine
Beckman Center B300, 279 Campus Drive, Stanford,
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Schmutz, J. and Myers, R.M.
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Gasterosteus aculeatus (three spined stickleback)
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Fax: 650 725 7739
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                                           CGCCCTGCTCAACGGCTCGCTGGGCGACTACGGCGGCGACGCCTACGGCGACGCCCTGCTCAA
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/clone_Tyector: lambda ZAP Express/pBK-CMV; Site_1: EcoR1
/note="Tyector: lambda ZAP Express/pBK-CMV; Site_1: EcoR1
(5' adaptor); Site_2: XhoI (3' linker primer); The mixed
organ cDNA library was generated using the ZAP-cDNA method
by Stratagene. First strand cDNA synthesis was primed with
a a 50 bp linker primer containing an oligo dT sequence
preceded by a synthetic XhoI site. 5 prime adaptors were
used containing an EcoR1 cohesive end. The finished cDNAs
were inserted in to the ZAP express vector
unidirectionally in the sense orientation with respect to
the lacZ promoter of pBK-CMV. An amplified library was
prepared from approximately 3 million primary clones in
the lambda ZAP Express vector. In vivo excision was then
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 used to generate individual pBK-CMV phagemid clones BST sequencing. ^{\mathtt{m}}
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/dev_stage="adult"
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/strain="Salinas river,
/db_xref="taxon:69293"
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                                                                                                       Sequences have been trimmed quality sequence with phred Seq primer: SK primer.
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Anderson, O.D., Akhunov, B., Chao, S., Crossman, C., Deal, K.,
Dvorak, J., Lazo, G.R., Pham, J., Rausch, C.J., Wilson, C. and Woo, J.
The structure and function of the expressed portion of the wheat
genomes - Salt-stressed root cDNA library
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BQ744212 749 bp mRNA linear EST 17-JUL-20 WHE4113_A01_A01ZS Wheat salt-stressed root cDNA library Triticum aestivum cDNA clone WHE4113_A01_A01, mRNA sequence.
                                                                                                                                                                                                                               Contact: Olin Anderson
US Department of Agriculture, Agriculture Research
                                                                                                                                                                                                                                                              Unpublished (2002
                                                                                                                                                                                                                                                                                                                                                                       Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
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Triticum aestivum (bread wheat)
Triticum aestivum
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BQ744212.1 GI:21890999
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Buchanan Street, Albany, CA 94710, USA
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                                                                                                                                                                                    5105595773
/mol_type="mRNA"
/cultivar="Chinese Spring"
/db_xref="taxon:4565"
/clone="WHE4113_A01_A01"
                                                                                          Location/Qualifiers
                                                              organism="Triticum aestivum"
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                                                                                                                                                                     GCCTGAACAAGATCGTGCGGATGTACAGCCCCGTGAGCATCCTGGACATCCGCCAGGGCC
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Pred. No.
    1674
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   Ą
      mRNA
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/dev stage="Pull tillering"
//lab host="E. coli SOLR"
//clome lib="Wheat salt-stressed root cDNA library"
//clome lib="Wheat salt-stressed root cDNA library"
//clome lib="Wheat salt-stressed phagemid
//octe="Vector: Lambda Uni-ZAP XR, excised phagemid
pBluescript SX(-); Site 1: BcoRT; Site 2: XhoI; Hydroponic
plants grown to full tillering stage were treated with 150
mM NaCl for either 12 hours or 7 days. Root tissues of the
plants subjected to both types of treatment were collected
separately at University of California, Davis (E. Akhunov
and K. Deal in J. Dvorak's Lab). Total RNA was prepared
separately from the two samples (12h and 7day treatments),
and equal amount of RNA was then pooled. PolyA RNA was
purified from the pooled RNA, a cDNA library was made, and
the cDNA clones were in vivo excised to give pBluescript
SK(-) phagemids in J. Dvorak's lab (E. Akhunov, J. Dvorak)
at the University of California, Davis. Colony plating,
plasmid DNA preparations and DNA sequencing were performed
in the OD Anderson lab (all other authors)." tissue\_type="Roots"

TCGCCGACCAGCCCGAGGACCTGCTCGTCTGCGGCGCCGTCGACTCGTACGACCGCGCCCT GCGGCCACCAGGCCGCCATGCAGATGCTGAAGGACACCATCAACGAGGAGGCCGCCGAGT CCGACTGGACCATCCTCGAGCAGATCCCCTTCGCCAACTTCACCAAGCTCTCCTTCGCCG CCATCGTGCAGAACCTGCAGGGCCAGATGGTGCACCAGGCCATCAGCCCCCGCACCCTGA 448 AGTCCCAGCAGAAGACCCCAGCAGGCCAAGGAGGCCGACGGCAAGGTGAGCCAGAACTACC 388 CCGGCATCGAGGTCCGCGACACCAAGGAGGCCCTGGACAAGATCGAGGAGGAGGAGCAGAACA 328 TCACCGCCCTGAGCGAGGGCGCCACCCCCCAGGACCTGAACACGATGTTGAACACCGTGG ACCACCAGGGCTTCCGCGGCAACCAGCAGAACACCGCCAAGCCCTCCGTCGACATCCAGC ACGCCTGGG---TGAAGGTGATCGAGGAGAGGCCTTCAGCCCCGAGGTGATCCCCATGT GCGAGGCCGAGAAGGAGCGCGCCGCCGCGCGAGCGCCACTACCAGAACCACCGCTCCCACC 187 GCTTCAACCAGCGGCCCCAGCTCCCCCAGCGCCGCGACGAGGTCGAGGCCAAGCGCC 127 CCTTCAGCCTCGTCGACGCCAAGCCGCCGCCCAAGCACCCGCGCTTCGGGCCCAAGTGGC DB 13; Length 749; Indels Gaps 625 307 565 247 67

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Mastigamoeba balamuthi cDNA similar to vacuolar ATP synthase
subunit B (EC 3.6.1.3), mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bapteste, B., Brinkmann, H., Lee, J.A., Moore, D.V., Gordon, P., Durufle, L., Gaasterland, T., Lopez, P., Philippe, H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mastigamoeba balamuthi
Mastigamoeba balamuthi
Bukaryota; Pelobiontida; Mastigamoebidae; Mastigamoeba
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Laboratory of Biochemical Parasitology
The Rockefeller University
The Nockefeller University
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The analysis of 100 genes supports the grouping of three highly divergent amoebae: Dictyostelium, Entamoeba, and Mastigamoeba proc. Natl. Acad. Sci. U.S.A. 99 (3), 1414-1419 (2002)
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AGGACCTGAACACGATGTTGAACACCGTGGGCGGCCACCAGGCCGCCATGCAGATGCTGA
                                                                 GCGCCATCGACACGATGAACTCGATCGCCCGTGGCCAGAAGATCCCCGCTGTTCAGCGCCG
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1: mmuller@rockvax.rockefeller.edu
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/clone_lib="Mastigamoeba
/note="syn: Phreatamoeba
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/mol_type="mRNA"
/strain="ATCC 30984"
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Fax: 306 966 2033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Allard, F., Crosby, W.L., Danyluk, J., Budes, F., Frick, M., Gaudet, D., Genswein, B., Graf, R., Gulick, P., Hrycan, L.D., Laroche, A., Links, M.G., McCarthy, B.L., Monroy, A., Muzak, I., Nilson, D., Penniket, C., Roach, J.L. and Sarhan, F. Functional Genomics of Abiotic Stress In Wheat and Canola Crops Unpublished (2003)
Contact: Wm. L. Crosby
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Spermatophyta; Magnoliophyta; Liliopaida; Poalea; Poaceae;
Pooideae; Triticeae; Triticum.
1 (bases 1 to 746)
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This sequence is the direct result of the Base calling software
Phred (default parameters). It is the raw base calls. To aid in the
identification of the high quality insert the software Lucy
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                                                                                                                                        TGCAGCCCGCCCTGCAGACCGGCACCGAGGAGCTGCGCAGCCTGTACAACACCGTGGCCA 250
                                                                                                           TGCTGCTCAAGCTCATCGGCGCCAAGAAGACCATGGAGATCGGCGTCTACACCGGGTACT 611
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/mol_type="mRNA"
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Pred. No. 2.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Contact: Genoscope
Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - France
BP 191 91006 EVRY cedex - France
Email: seqref@genoscope.cns.fr, Web: www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. Contact: Feng Liang Email: fliang@lifetech.com URL
http://fulllength.invitrogen.com/Invitrogen.Comporation 1600
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Li,W.B., Gruber,C., Jessee,J. and Polayes,D. Full-length cDNA libraries and normalization Unpublished (2001)
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Avenue Genoscope sequence ID : CSODI015CA02NP1. Location/Qualifiers
                                                                                                                                                                                                                                      /tissue type="PLACENTA COT 25-NORMALIZED"
/clone lib="Homo sapiens PLACENTA COT 25-NORMALIZED"
/note="Ist strand cDNA was primed with a NotI-oligo(dT)
primer. Five prime end enriched, double-strand cDNA was
digested with Not I and cloned into the Not I and EcoR V
sites of the pCMVSPORT 6 vector. Library was normalized."
                                                                                                                                                                                                                                                                                                                                                                                                   /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="CSODIO15YB03"
                                                                                                                                5.3%; Score 79.8;
9.6%; Pred. No. 2.8
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Zea mays
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AY106831
                                                    If you are interested in getting corresponding physical clones, these are publicly available from ZmDB and may be found by BLAST searching at MSL, maizemap.org; ZmDB, www.zmdb.istate-edu; TIGR; www.ncbi.nlm.nih.gov. When the source of two.tigr.org; or NCBI, www.ncbi.nlm.nih.gov. When the source of two.tigr.org; or NCBI, www.ncbi.nlm.nih.gov. When the source of two.tigr.org; or NCBI, www.ncbi.nlm.nih.gov. When the source of two.tigr.org; or NCBI, www.ncbi.nlm.nih.gov. When the source of two.tigr.org; or NCBI, www.ncbi.nlm.nih.gov. When the source of two.tigr.org; or NCBI, www.ncbi.nlm.nih.gov. When the source of two.tigr.org; or NCBI, www.ncbi.nlm.nih.gov. When the source of two.tigr.org; or NCBI, www.ncbi.nlm.nih.gov.
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Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
clade; Panicoideae; Andropogoneae; Zea.
                            schnable, lowa State, then clones may be requested from ZmDB.
                                                                                                                              Submitted (25-APR-2002) Maize Mapping Project, University Missouri, Columbia, MO 65211, USA
                                                                                                                                                                                                        Maize Mapping Project/DuPont Consensus Sequences for Design
Overgo Probes
Unpublished (2002)
                                                                                                                                                                                                                                                        Hainey, C.F., Dolan, M., Miao, G.H., Vogel, J.M., Whitsitt, M.S., Arthur, L.W., Hanafey, M., Morgante, M. and Tingey, S.V.
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HTC.
                                                                                                                                                               Direct Submission
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                          .zmdb.iastate.edu
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 TGTACGGGTACTACGACGACCCCTGCAGCGCCAACTCGCCCCTGATGAAGAAGATCCGGG
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/mol_type="mRNA"
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/db_xref="taxon:4577"
/clone
                                                                               organism="Zea
_lib="Maize Mapping Project/DuPont Cornsensus
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Query Match Best Local Similarity AGACCCTGCGCGCCGAGCAGGCCACCCAGGACGTGAAGAACTGGATGACCGAGA-----ACAAGCGGTGGATCATCCTGGGCCTGAACAAGATCGTGCGGATGTACAGCCCCGTGAGCA TGAACACGATGTTGAACACCGTGGGCGGCCACCAGGCCGCCATGCAGATGCTGAAGGACA ACAACAACGGGCTGACCTCCAACCTGGCGGGCAGCCGCAACCCGAGCCTGGACTACGGGT COGTOGCOAACATOGGOAAGCTCATGTTCGCCCAGTTCTCCGAGCTGGTCAACGAGTTCT CCGACGGCAAGGTGAGCCAGAACTACCCCCATCGTGCAGAACCTGCAGGGCCAGATGGTGC AGCGAGAGGTCAACTCGGTCAACGACAACCCTGTCATCGACGTCCACCGTGGCAAGGCGC TGGACAAGATCGAGGAGGAGCAGAACAAGTCCCAGCAGGAAGACCCCAGCAGGCCCAAGGAGG CCGTGGCCACCCTGTACTGCGTGCACGCCGGCATCGAGGTCCGCGACACCAAGGAGGCCC AGGAGGTGAACGCCATGGACCCGCTGCTGAAGCCGAAGCAGGACAGGTACGCGCTCCGCA TGAAGCAGCTGCAGCCCGCCCTGCAGACCGGCAGCAGCCTGCGCAGCCTGTACAACA TCGAGGCCGCCGATCATGGAGCACATCCTGGATGGCAGCTCCTTCATGAAGCACGCCA тедардесттенсетнальнее серестветвенные серественные терратура ACCTCCACAGCGCGCGCTTCAGCGAGAAGGCCCTGCTCACCGCCATCGACCGCGAGGCGG TCCTGGACATCCGCCAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCA CCGTCAAGAGCTGCGTGATGGCGGTGGCCAGGAAGGTGCTGACCACCAGCCTCGGCGGCG ACATEGTCGCGCTGTGCCAGGCCGTGGACCTGCGCCACCTCGAGGAGAACCTCAAGAGCG CCCTGCAGGAGCAGATCGCCTGGATGACCAGCAACCCCCCGTGCCCCGTGGGCGACATCT TCGTCTCCGCCAGGAAGACCGCCGAGGCGGTGGACATCCTCAAGCTCATGTCGTCCACGT CCATCACCAACCACGTCCAGAGCGCGGAGCAGCACAACCAGGACGTGAACTCCCTCGGCC TCAAGGGCACCGAGATCGCCATGGCGTCCTACTGCTCCGAGCTCCAGTACCTGGCCAACC ACCAGGCCATCAGCCCCCGCACCCTGAACGCCTGGGTGAAGGTGATCGAGGAGAAGGCCT Conservative /note=ithis sequence is part of a project of BST assemblies resulting from the application of public contigs to seed DuPont contigs; this resource was assembled by DuPont as part of a collaboration for the overgo addressing of BACB in conjunction with the Maize Mapping Project" 5.3%; 43.9%; 0 Score 79.8; Pred. No. 3. Mismatches DB 11; 617; Indels Length 15; 361 1486 1426 1366 1246 1186 1066 1006 835 1306 601 541 481 421 946 988 241 826 181 949 895 655 301

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REPERENCE
AUTHORS
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1 (bases 1 to 1126)
Allard, P., Crosby, M.L., Danyluk, J., Budes, F., Frick, M., Gaudet, I Genswein, B., Graf, R., Gulick, P., Hrycan, L.D., Laroche, A., Links, M.G., McCarthy, B.L., Monroy, A., Muzak, I., Nilson, D., Penniket, C., Roach, J.L. and Sarhan, P.
Punctional Genomics of Abiotic Stress In Wheat and Canola Crops Unpublished (2003)
Contact: Wm L Crosby
                                                                                                                                                                                                                                                                                                                                                                                          ral: 306 966 1769
Fax: 306 966 2033
Email: fgas ests@cs.usask.ca
Email: fgas ests@cs.usask.ca
This sequence is the direct result of the Base calling software
Phred (default parameters). It is the raw base calls. To aid in the
identification of the high quality insert the software lucy
(default parameters) has been run on this sequence. Lucy identified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   University of Saskatchewan, Department of Computer Science 1C101 Engineering Building, 57 Campus Drive, Saskatoon, Saskatchewan, S7N 5A9, Canada
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bioinformatics
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Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
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                                                                                                                                                                                                                                                                                                                                                        region [12,750].
te: L6B001 row: A column:
/clone lib="Triticum aestivum PGAS: Library 6 CAP GATE 1"
/note="Organ: Crown and leaf; Vector: pCMV.SPORT6; Crown
(50%) and leaf (50%) tissues from wheat cultivar Norstar
after short exposure times to low temperature in the light
and in the dark. 12 mRNA populations were combined before
constructing the library. The first 6 populations: After 7
days of growth at 200s from wheat cultivar Norstar after
short exposure times to low temperature in the light and
in the dark. 12 mRNA populations were combined before
constructing the library. The first 6 populations: After 7
days of growth at 20, wheat plants were transferred to 40
in the light. 1cm crown sections and green leaf tissu were
                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                    /mol_type="mRNA"
/db_xref="taxon:4565"
                                                                                                                                                                                                                                                                                            organism="Triticum aestivum"
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CK163121 CK163121 FGAS015739 Triticum

BRNA

1064 bp aestivum FGAS: sequence

Library

linear BST 05-DEC-2003 4 Gate 8 Triticum

CK163121.1 GI:38993028

Triticum aestivum (bread wheat)
Triticum aestivum

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Local
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GAGATOTGCCAGCTCCCCGTCGGCGACGGCATCACCCTCTGCCGCCGCCCCA 175
                                                 GCCCCGGGCCAGATGCGCGAACCCCCGCGGCAGCACATCGCCGGCGCGACCA 712
                                                                                                        CGCTCCTACCGCGACTTCGTCCTCGACCTCAACAAGGCCCTCGCCGCCGACCAGCGCGTC
                                                                                                                                                                  AACACGATGTTGAACACCGTGGGCGGCCACCAGGCCGCCATGCAGATGCTGAAGGACACC
                                                                                                                                                                                                                                                                                                                                                                                   AGCCCCGAGGTGATCCCCATGTTCACCGCCCTGAGCGAGGGCGCCACCCCCCAGGACCTG 543
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGACTGGAGCACGAGGACACTGACATGGACTGAAGGAGTAGAAA)."
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48.1%;
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GSS 26-AUG-2003

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REFERENCE
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Contact: Wm L Crosby
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  University of Saskatchewan, Department of Computer Science 1C101 Engineering Building, 57 Campus Drive, Saskatcon, Saskatchewan, S7N SA9, Canada Tel: 306 966 1769
Fax: 306 966 2033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bmail: fgas_ests@cs.usask.ca
This sequence is the direct result of the
phred (default parameters). It is the raw
identification of the high quality insert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopaida; Poalea; Poaceae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (default parameters) has been run on this sequence. Lucy identified the region [1,834]. Plate: L4B007 row: C column: 11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bioinformatics
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1 (bases 1 to 1064)
                                                 CAGGCCATCAGCCCCCGCACCCTGAACGCCTGGGTGAAGGTGATCGAGGAGAAGGCCTTC
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                                                                                                                                                                                                GACGGCAAGGTGAGCCAGAACTACCCCATCGTGCAGAACCTGCAGGGCCCAGATGGTGCAC 423
GAGGCCAACCACGGCACCTTCGACTTCGTCTTCGTGGACGCCGACAAGGACAACTACCTC
                                                                                                                                CACAAGATOGACTTCCGCGAGGGCCCCGGCCGCTGCCGGTGCTGGACGCGCTGCTGGAGGAC
                                                                                                                                                                                                                                                                                                                                       GACAAGATCGAGGAGGAGCAGAACAAGTCCCAGCAGAAGACCCCAGCAGGCCAAGGAGGCC 363
                                                                                                                                                                                                                                                                                                                                                                                                           GGCTACTCCCTCGCCACCGCGCTCGCCATCCCCGACGACGACCGTCTTGGCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTGGCCACCCTGTACTGCGTGCACGCCGGCATCGAGGTCCGCGACACCAAGGAGGCCCTG 303
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /clone lib="Triticum aestivum PGAS: Library 4 Gate 8"
/note="Organ: Crown and leaf; Vector: pGWV.SPORT%; Aerial
parts (crown and leaf) of wheat cultivar Norstar during
dehydration stress. 8 mRNA populations were combined
before constructing the library. The first four come from
removing plants from vermiculite (7 day old plants) and
incubacing them at 20C on the bench without water for 1,
2, 3 and 4 days. The last four come from plants grown in
soil in a growth chamber after watering is terminated.
Four samplings were taken in a two week period; the first
after wilting was observed and the last, two weeks later,
consisted of live crown and stem tissue (leaf tissue was
yellow and dead). First strand synthesis in this library
was done in the presence of methylated dCTP thereby
protecting from internal cleavage with Not1."
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db_xref="taxon:4565"
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Pred. No. 5.
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AUTHORS
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Best Local S
Matches 334
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CG351928 CG351928.1 GI:34269194
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Whitelaw, C.A., Quackenbush, J., Van Aken, S., Utterback, T.,
Whitelaw, C.A., Rohlfing, T.,
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Other GSSs: OG3AG53TV
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Citek,R.W., Nunberg,A., Robbins,D. and Lakey,N.
Consortium for Maize Genomics
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clade; Panicoideae; Andropogoneae; Zea.
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1 (bases 1 to 1138)
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1 (bases 1, Crosby, W. L., Danyluk, J., Budes, F., Frick, M., Gaudet, D., Genswein, B., Graf, R., Gulick, P., Hrycan, L.D., Laroche, A., Links, M. G., McCarthy, E. L., Monroy, A., Muzak, I., Nilson, D., Penniket, C., Roach, J. L. and Sarhan, F.

Punctional Genomics of Abiotic Stress In Wheat and Canola Crops Unpublished (2003)
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                                                                              Bioinformatics
University of Saskatchewan, Department of Computer Science
1C101 Engineering Building, 57 Campus Drive, Saskatcoon,
Saskatchewan, S7N 5A9, Canada
Tel: 306 966 1769
Tex: 306 966 2033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             aestivum cDNA, mRNA sequence.
CK163513
Email: fgas_ests@cs.usask.ca
This sequence is the direct result of the Base calling software
phred (default parameters). It is the raw base calls. To aid in
identification of the high quality insert the software Lucy
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                                                              GAGGCCAACCACGGGACCTTCGACTTCGTCTTCGTGGACGCCGACAAGGACAACTACCTC
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/clone="Organ: Crown and leaf; Vector: pGWV.SPORT6; Aerial
parts (crown and leaf) of wheat cultivar Norstar during
dehydration stress. 8 mRNA populations were combined
before constructing the library. The first four come from
removing plants from vermiculite (7 day old plants) and
incubating them at 20C on the bench without water for 1,
2, 3 and 4 days. The last four come from plants grown in
soil in a growth chamber after watering is terminated.
Four samplings were taken in a two week period; the first
after wilting was observed and the last, two weeks later,
consisted of live crown and stem tissue (leaf tissue was
yellow and dead). Pirst strand synthesis in this library
was done in the presence of methylated dCTP thereby
protecting from internal cleavage with Noti."
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Pred. No. 6.3;
O; Mismatches 303;
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Best Local Similarity
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       124 GAGGGCTTCGCCCTGAACCCCGGCCTGCTGGAGACCGCCGAGGGCTGCAAGCAGATCATG 183
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 (bases 1 to 759)
Wing,R., Close,T.J., Kleinhofs,A., Wise,R., Begum,D., Frisch,D.,
Yu,Y., Henry,D., Palmer,M., Rambo,T., Simmons,J., Choi,D.W.,
Yu,Y., D., Oates,R. and Main,D.
Penton,R.D., Oates,R. and Main,D.
Development of a genetically and physically anchored BST resource
for barley genomics: Morex unstressed seedling root cDNA library
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Email: rwing@clemson.edu
Total hq bases = 388
Seq primer: AATTAACCCTCACTAAAGGG
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Clemson University Genomics Institute
Clemson University
100 Jordan Hall, Clemson, SC 29634, US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Unpublished (2001)
On Nov 16, 2000 this sequence version replaced gi:11188608
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Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Pooideae; Triticeae; Hordeum.
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864 656 4293
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Location/Qualifiers
                                                                                                                                                                                                                                with water, mystatin and cefotaxine in covered crystallization dishes. Five-day old seedling roots were then harvested, total RNA was prepared, poly(A) RNA was purified, one primary unamplified cDNA library was made, and 1 million pfu were in vivo excised to give pBluescript SK(-) cDNA phagemids. These steps were performed in the TJ Close laboratory at the University of California, Riverside (choi, Close, Fenton). Phagemids were plated and picked at the Clemson University Genomics Institute (CUGI) (Begum, Palmer, Frisch, Atkins and Wing). Plasmid DNA preparations, DNA sequencing and sequence analysis were performed at CUGI (Wing, Yu, Frisch, Henry, Simmons, Oates, Rambo, Main). The sequence has been trimmed to remove vector sequence and lysis seen trimmed to remove vector sequence and sequence details on library preparation and sequence analysis see http://www.genome.clemson.edu/orders Also see Close TJ, Wing R, Kleinhofs A, Wise R (2001) Genetically and physically anachored EST resources for barley genomics. Barley Genetics Newsletter 31:29-30. (http://wheat.pw.usda.gov/ggpages/bgn/31/cover.html) "
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /clone_lib="Hordeum vulgare seedling root EST library HVcDNA0007 (Etiolated and unstressed)" [Your Procedure of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of the seed of th
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/lab_host="TUC121"
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47.8%;
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                                                                                                       Score 76.4;
Pred. No. 6.
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Contact: Wm. L. Crosby
   Email: fgas_ests@cs.usask.ca
This sequence is the direct result of the
Phred (default parameters). It is the raw
identification of the high quality insert
(default parameters) has been run on this
the region [128,636].
                                                                                                                                                                                                           University of Saskatchewan, De
IC101 Engineering Building, 57
Saskatchewan, S7N SA9, Canada
Tel: 306 966 1769
Fax: 306 966 2033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota, Viridiplantae, Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae; Triticeae; Triticum.

1 (bases 1 to 869)
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Triticum aestivum
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57 Campus Drive, Saskatoon,
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                                                                       Base calling software base calls. To aid in the the software Lucy
                                          sequence. Lucy identified
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AY104577
Zea mays PCO137756 mRNA sequence.
AY104577
AY104577.1 GI:21207655
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/lab host="DH5 alpha"
/clone lib="Triticum aestivum FGAS: Talt5"
/clone lib="Triticum aestivum FGAS: Talt5"
/note="Organ: Crown; Vector: pGEM-T; SSH (suppression subtractive hybridization) CDNA library from genotype pl178383 cold hardened at 2 C for 21 days and 49 days (equal amount of cDNA pooled together before subtraction, tester) and subtracted against genotype Morstar cold hardened at 2 C for 1 day (24 H) (driver). Modified Smart cDNA (Clontech) priming and non-directional cloning"
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Pred. No. 6.7;
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If you are interested in getting corresponding physical clones, these are publicly available from ZmDB and may be found by BLAST searching at MSL, maizemap.org; ZmDB, www.zmdb.iastate.edu; TIGR, www.tigr.org; or NCBI, www.ncbi.nlm.nih.gov. When the source of the maize cDNA sequences is either Virginia Walbot, Stanford or Pat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Schnable, Iowa State, then clones may be requested from ZmDB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Coe, E.H.
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2 (bases 1 to ) 30
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD clade; Panicoideae; Andropogoneae; Zea.
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                                                                                                                                                                                                                                                                                                    GAAGGCCTTCAGCCCCGAGGTGATCCCCCATGTTCACCGCCCTGAGCGAGGGGGCGCCACCCC 533
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                                                                                                                 CCAGCGCATGAAGAACTACACCATCTACGCCGTGTCCATCACCATCCGCATCGTGCTGGG
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Zea mays
Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCA
clade; Panicoideae; Andropogoneae; Zea.

1 (bases 1 to 883)
Whitelaw, C.A., Quackenbush, J., Van Aken, S., Utterback, T.,
Resnick, A., Fraser, C.M., Budiman, M.A., Bedell, J.A., Rohlfing, T.,
Citek, R.W., Nunberg, A., Robbins, D. and Lakey, N.
Consortium for Maize Genomics
Unpublished (2002)
Other GSSs: OG2BH19TH
Contact: Cathy Whitelaw
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CG2BH19TV ZM 0.7 1.5 KB Zea mays

genomic survey sequence.

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
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